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Web & Internet
NEWS
August 1996
Volume 1, No. 1

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PREMIERE ISSUE

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Letter from the Publisher

Welcome to the premiere issue of *Hawaii's Web & Internet News*. Our goal is to provide our readers with current and responsible journalism and to report the advancement of information technology as it develops in Hawaii and around the world.

Hawaii's Web & Internet News will serve the people of Hawaii and the Pacific Rim with the finest news and reports relating to the growing facets of the computer and telecommunications industry.

The Internet has become a huge hit in Hawaii, with thousands of Hawaii residents joining local Internet service providers in the first half of 1996. In addition, many more thousands of Hawaii residents have surfed the World Wide Web via major online services including America Online, Prodigy and CompuServe.

The education system in Hawaii has become one of our primary reporting targets for our publication. In future editions of *Hawaii's Web & Internet News*, we will establish a reporting system covering the entire scope of the DOE in Hawaii schools statewide.

Hawaii's Web & Internet News highly supports quality in education and adheres to the philosophy that education is the sole social foundation and organization that will yield immediate positive results for Hawaii and its people.

Hawaii's Web & Internet News has been established in Honolulu, Hawaii, to commit itself to promoting computer literacy and education. I ask your trust in our ability to provide the people of Hawaii a useful conduit to information affecting the information industry.

Letters to the editor are welcomed. If you have any comments or suggestions, please send to: P.O. Box 15411, Honolulu, Hawaii 96830-5411, or email **linknews@aol.com**.

Aloha! and welcome to the premiere issue of Hawaii's Web & Internet News.

Your local connection to the information superhighway!

Mahalo Nui Loa,

Lincoln H. Jacobe

Publisher

HAWAII'S Web & Internet NEWS

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Premiere Issue

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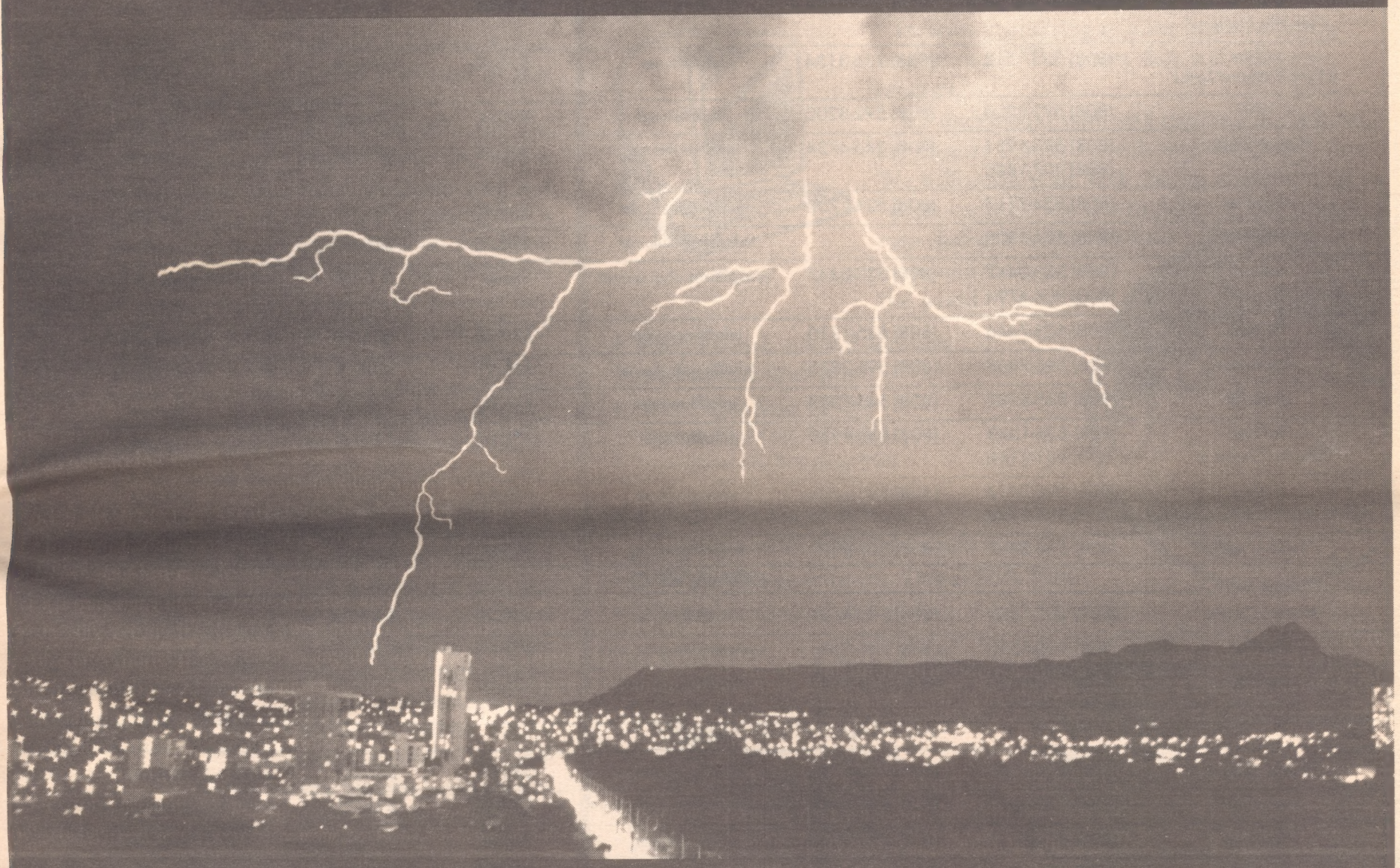

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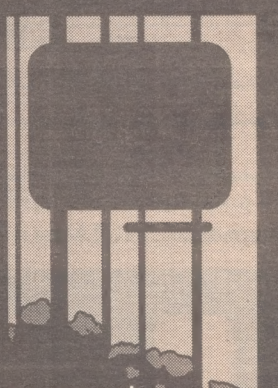


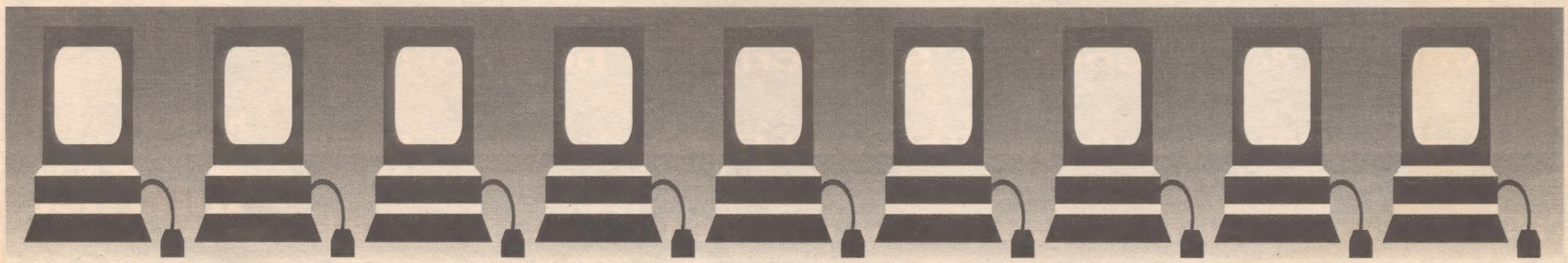
HAWAII'S Web & Internet NEWS

Hawaii's Internet Service Providers

Your guide to local ISPs.

COMPANY NAME	PHONE NUMBER	FAX NUMBER	EMAIL ADDRESS	SET-UP FEE	MONTHLY FEE	WWW ADDRESS (URL) http://www.
			OAHU			
1st Source	(808) 293-0733	(808) 293-0733	info@1sc.com	$25.00	$25.00	1source.com
FlexNet (Flex Info Network)	(808) 539-3790	(808) 539-3793	info@aloha.com	$25.00	$25.00	aloha.com
HI Net (Hawaii Internet Syst.)	(808) 235-1513	(808) 236-3134	info@hi.net	$20.00	$25.00	hi.net
HITS	(808) 592-8200	(808) 592-8200	info@hits.net	$30.00	$25.00	hits.net
Hawaii Online	(808) 533-6981 (808) 207-1880	(808) 246-4734	info@aloha.net	$30.00	$30.00	aloha.net
Hula Net	(808) 524-7717	(808) 524-7732	hulagirl@hula.net	$25.00	$25.00	hula.net
Honolulu.NET	(808) 536-0900		info@honolulu.net	$25.00	$19.95	honolulu.net
Interact!	(808) 533-0447 (800) 906-4794	(808) 533-0447	sysop@bbs.ohana.com	none	$30.00	ohana.com
I-One	(808) 623-7446	(808) 625-1710	info@i-one.com	$30.00	$21.95	i-one.com
Keystroke	(808) 596-7868	(808) 591-2835	info@keystroke.net	$34.95	$24.95	keystroke.net
LavaNet	(808) 545-5282	(808) 545-7020	info@lava.net	$35.00	$28.00	lava.net
Poi Net (Pacific Onramp)	(808) 836-1343 (800) 831-2188	(808) 833-1938	info@poi.net	$30.00	$25.00	poi.net
PIXI (Pacific Information Exchange)	(808) 596-7494 (800) 831-2188	(808) 593-1403	info@pixi.com	$35.00	$29.00	pixi.com
HGEANet*	(808) 536-2351	(808) 528-4059	help@hgea.org	$25.00	$15.00	hgea.org
			KONA/HILO			
Hawaii OnLine	(800) 207-1880	(808) 246-4734	info@aloha.net	$30.00	$30.00	aloha.net
Inter-Pac	(808) 935-5550	(808) 935-5534	sysman@interpac.net	$25.00	$24.95	interpac.net
InterLink	(808) 334-4000 (808) 326-9556	(808) 326-9545	info@ilhawaii.net	$35.00	$29.95	ilhawaii.net
			MAUI			
Hawaii OnLine	(800) 207-1880	(808) 246-4734	info@aloha.net	$30.00	$30.00	aloha.net
Maui Gate	(808) 875-0899	(808) 879-1581	sysop@mauigateway.com	$20.00	$19.95	mauigateway.com
Maui Net	(808) 875-2535	(808) 875-2539	info@maui.net	$20.00	$20.00	maui.net
Poi Net	(800) 873-0760	(808) 833-1983	info@poi.net	$30.00	$25.00	poi.net
			KAUAI			
Hawaii OnLine	(800) 207-1880	(808) 246-4734	info@aloha.net	$30.00	$30.00	aloha.net
Hawaiian (Kauai Internet)	(808) 245-8141	(808) 246-0251	info@hawaiian.net	$25.00	$25.00	hawaiian.net
PIXI	(808) 826-1309 North Shore Computer	(808) 826-5154	nscc@pixi.com	$45.00	$29.00	pixi.com
			MOLOKAI/LANAI			
Hawaii OnLine	(800) 207-1880	(808) 246-4734	info@aloha.net	$30.00	$30.00	aloha.net

All prices include unlimited access and are subject to change without notice. All setup fees reflect a one time charge. Special rates available for some ISPs. Please call for more information. *HGEANet is for members only. Please send corrections and additions to kbucar@lava.net.



Internet Basics

Some tips for choosing an Internet service provider

By Kristine Bucar

Internet service providers (ISP) help you access the Internet, the global connection of computer networks. Most home-based users connect by computer with a modem, modem software and telephone jack. One ISP said they had a person activate an account who complained that she got a busy signal every time she tried to connect. It turns out she didn't even have a computer, she was trying to access the Internet by dialing her telephone.

Here are some questions you may want to ask when shopping for an ISP:

❑ "What are your 'tech support' hours?" If you have trouble reaching an ISP to ask about signing up, then you might have trouble reaching them when you have a technical problem. But tech support isn't there to teach you how to use the Internet. Take a class, read a book or get a mentor before you go online. Once you have an account, the Internet itself provides the vehicle to learn more.

❑ "What is your user-to-modem ratio?" 10:1 is the industry target. If there are too many users to modem, you may experience busy signals at peak times when you try to dial in. Do expect some down time. The Internet is not yet a utility and not as reliable as cable television or telephone service.

❑ "What is the start-up fee and what comes with it?" Software, installation disks, a manual, a free class for new users?

❑ "Do you offer any discounts?" Some offer student and senior citizens rates, and discounts for paying with a credit card or for limited service. Some ISPs offer discounts for one-year contracts. This may be fine after you try and are sure you like it.

Email and the World Wide Web are two "services" of the Internet. Newsgroups — 15,000-plus, text-based "electronic bulletin boards" — are another. Some ISPs don't carry certain newsgroups that provide illegal materials, such as picture-formatted files of child pornography, or pirated software. If this is an issue for you, ask what their policy is in advance. Remember, though, these things don't jump out at you. The user has to make an active effort to request these materials.

Before you call an ISP, think about if you need a "flat-rate" account or not. Flat-rate provides an unlimited number of hours each month. Some ISPs offer cheaper rates for accounts where you get a specific number of hours (like 10) each month. If you go over the allotted number of hours, then each additional hour is billed at a specific rate. You may want to have a "user name" ready when you call to sign up. The user name will appear in your email address, so choose something you can live with.

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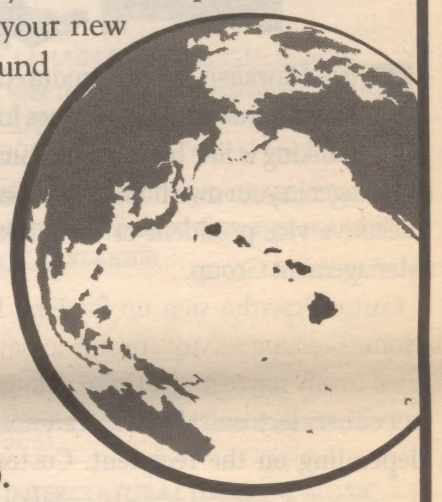

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- Entertainment '96 Coupon Book
- Rap Reiplinger Classic Video
- Hair by HazeLee, Honolulu
- Oahu Attractions Association
- Two Wheels, Kapaa, Kauai
- Coffee Islands of Hawaii
- Marue & Gertz (Alii Gifts)
- Hawaiian Resources Co., Ltd.
- Carr's Cycle Insurance
- Royal Hawaiian Mint, Honolulu
- The Hawaiian Collection
- Trimark of Hawaii
- Beaches and Dreams, Hawaiian Weddings, Etc.
- Aloha Toner Cartridge Service
- Naish Hawaii, Kailua
- American Society of Media Photographers, Hawaii Chapter
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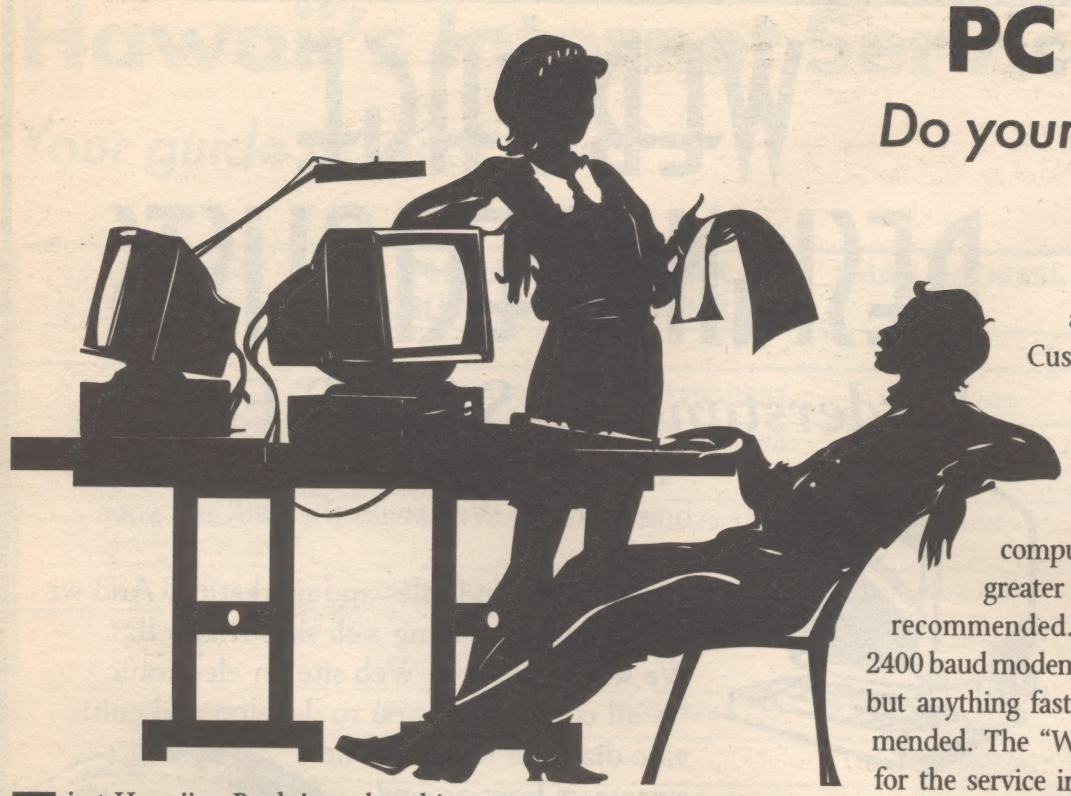
PC Banking at Home

Do your banking without leaving home

By Kristine Bucar



First Hawaiian Bank introduced its computer-based home banking services July 1, 1996. "PC Banking is like having a personal money manager in your own home," said Gary L. Caulfield, executive vice president of the bank's Information Management Group.

Customers who sign up for First Hawaiian's PC Home Banking service are able to have payments issued to any payee in the United States. Payments go out either electronically or in traditional check form, depending on the recipient. Customers can also

Pay your bills, view your account balances and order new checks for your checkbook without setting foot outside your home.

schedule automatic bill payments up to 60 days in advance, view account balances and transaction information, balance their checkbook and make transfers to and from FHB accounts — all online. The payee's name and address are required to make online payment. Payments can be canceled online. Other services that can be performed include ordering checks, requesting copies of checks and sending in-system email inquires to the customer service department. Almost every basic banking service that can now be done in real life can be done virtually, except for making cash withdrawals.

People who want to use the service need a computer, a modem, a First Hawaiian checking account and a starter kit. Customers can use either a Mac or IBM-compatible computer, a 486 or greater processor is recommended. At least a 2400 baud modem is required, but anything faster is recommended. The "Welcome Kit" for the service includes software — a choice of either Quicken 5 Starter Edition or Microsoft Money 4.0 for Windows '95. The service can also be used with the Quicken 6.0 version for the Mac, but that isn't provided free in the Welcome Kit. Users of the service choose a four-digit personal identification number (PIN) and use it in a manner similar to an ATM PIN number.

The service includes a free six-month trial period. After the trial period, the charge is $9.95 per month for the first 20 bill payments and eight log-ins. Each additional bill payment or log on is 50¢ each.

The service is not run through the Internet, but rather a closed, private network operated by Intuit Services Corporation (ISC). ISC is a check processing service which acts as a data warehouse or an online go-between among the banks, merchants and consumers. The system has toll-free phone numbers; account holders can connect from the neighbor islands or even anywhere in the United States without charge.

Security measures include passwords, four-digit PIN and data encryption. Both software programs have password features and Quicken also uses an Intuit membership number. Data is encrypted by hardware at one end, sent over the network and decrypted at the other end.

First Hawaiian joins the nationwide trend toward PC banking. The Online Banking Report newsletter said that "Across North America, an estimated 835,000 consumers have signed up with 150 different financial institutions for online checking account access. That's 610,000 more, or four times, the number eight months ago."

The Online Banking Report also notes:

- BayBanks (Boston) attracted 65,000 customers to its new HomeLink program, seven percent of its customer base, in just one month. Citibank's (New York) Direct Access has grown from 40,000 subscribers to 190,000 in the past nine months.
- Wells Fargo (San Francisco) Online Banking has grown from 20,000 subscribers to 100,000 in the past 12 months.
- Currently, more than 1,000 banks worldwide have a presence on the Web. Worldwide, 12 now offer checking account access via the Web: 9 in the US, 1 in Canada, 1 in Antigua, and 1 in Australia. (A Web presence means that the bank has information about its services, *but doesn't necessarily* offer banking services via the Internet.)

One of the institutions that is offering the option of banking through the Internet is Bank of America in California. "In designing our new service, we wanted to let customers choose how to access HomeBanking," said Jeanine Brown, executive vice president for Interactive Banking. Hence, the option of connecting via online service like AOL, the Internet or directly through a customized version of the Managing Your Money software.

Customers need to have a California-based Bank of America account to take advantage of the service. Theoretically, Hawaii residents who want to bank from home with Bank of America can open accounts in California and Hawaii and utilize the service. HomeBanking costs $6.50 a month, but it's free for the first 3 months and with certain types of checking accounts.

To make tracking home finances even more seamless, Quicken offers a Visa Gold Card that delivers its statements via modem. Transactions are automatically entered and categorized and may be downloaded each month.

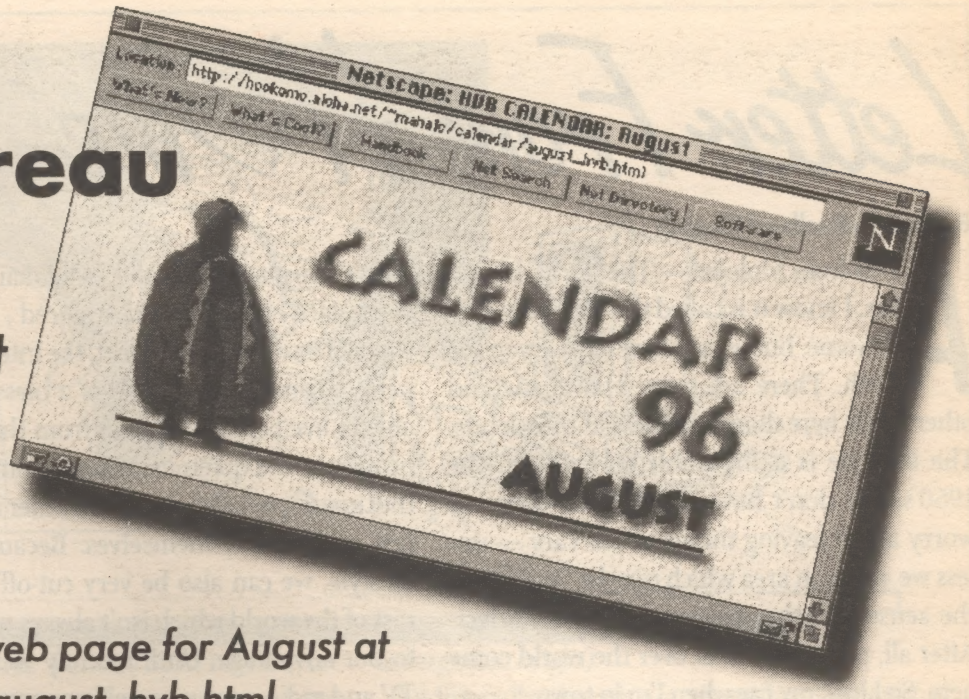
©1996 Kristine Bucar. All rights reserved. *Kristine Bucar is a Hawaii-based writer who specializes in home computing and new media. Visit her home page on the Web at* **http://www.lava.net/~kbucar/** *or send her email at* **kbucar@lava.net**.

Check out these sites:

First Hawaiian Bank — *http://www.fhb.com/*
BayBanks — *http://www.baybank.com/*
Quicken — *http://www1.qfn.com/quicken/*
Online Banking Report — *http://www.netbanker.com/*
Citibank — *http://www.Citibank.com/*
Microsoft Money — *http://www.microsoft.com/msmoney/*
Bank of America — *http://www.bofa.com/*
Wells Fargo — *http://wellsfargo.com/*

The Hawaii Visitors and Convention Bureau Calendar of Events

Find out what's going on in August



For more up-to-date information, check out the web page for August at http://hookomo.aloha.net/~mahalo/calendar/august_hvb.html

POLO SEASON ON MAUI August 1 - November. Olinda Polo Field is the site of polo games every Sunday at 1 p.m. Call: 579-8660.

BAYFEST `96 August 2-4. Marine Corps Base Hawaii, Kaneohe Bay. The public is invited to this three-day watersports and entertainment carnival by beautiful Kaneohe Bay on Oahu. It will feature E.K.Fernandez Rides & Midway, plus free performances by Master Hypnotist Tony Angelo, Robi Kahakalau w/Fiji and Friends, Kapena, Palolo and more.

STATE CHAMPIONSHIPS CANOE REGATTA August 3. Kihee Lagoon, sponsored by the Hawaiian Canoe Racing Association. 9 a.m.

MAUI ONION FESTIVAL August 2-4. This celebration at Whalers Village on Kaanapali celebrates the Maui Onion, which has become a famous Maui agricultural product and gourmet cooking ingredient. Displays, music and entertainment highlight the event. Call: 667-4567.

ALL SPORT RAINBOW FUN RUN August 3. A 5k/10k/ run/walk through scenic Manoa Valley beginning at 7 a.m. Great food, entertainment and prizes will be provided. Proceeds from this event benefit the University of Hawaii Athletic Scholarship Fund. Call: 956- 9630.

NA HULA O HAWAII FESTIVAL August 4. The Honolulu Zoo hosts this arts and crafts display and sale from 10 a.m. to 3 p.m., and hula demonstrations from 4 p.m. to 7 p.m. Call: 266-7655.

HAWAII BILLFISH AMATEUR COMPETITION August 4-10. This is the amateur division of the largest billfish tournament in the world, which takes place in Kailua-Kona and raises money for billfish research on the life cycle and protection of marlin and other billfish. Call: 329-6155.

KENWOOD CUP SAILING RACE August 5–16. The Hawaii International Offshore Series features six windward/leeward courses, an ocean triangle race on a 22-nautical-mile course off Waikiki, a 150-mile Honolulu-to-Maui race along Molokai's north shore, and a 390-mile race from Oahu to Kaula, Niihau, Kauai and return. The 1996 Mumm 36 Pacific Region,Championship is held in conjunction with the Kenwood Cup. The best international Grand Prix racers compete on 50 yachts, ranging in size from 35 feet to 82 feet. Call: 946-9061.

ALOHA FRIDAY KONA SHOOTOUT BILLFISH TOURNAMENT August 9. A new big game fishing tournament that is part of the Hawaii International Billfish Tournament in Kailua-Kona. Open to amateurs. Prizes for marlin and ahi (tuna). Call: 329-6155.

HAWAII STATE WINDSURF CHAMPIONSHIPS August 10. This is a pro and amateur women's and men's windsurfing competition at Kahana Beach Park in Kahului, Maui. Call: 877-2111.

ICE CREAM FESTIVAL OF MAUI August 10. All-you-can-eat ice cream, entertainment and games at the War Memorial Complex in Wailuku, Maui. Call: (808) 244-5508.

LANAI VISITING ARTIST PROGRAM August 10–11. Chef Gordon Hamersley, of Hamersley Bistro in Boston shares cooking techniques on the island of Lanai. Call: (800) 321-4666.

NA HULA O HAWAII FESTIVAL August 11. The Honolulu Zoo hosts this arts and crafts display and sale from 10:00 a.m. to 3:00 p.m., and hula demonstrations from 4:00 p.m. to 7:00 p.m. Call: 266-7655.

HAWAIIAN INTERNATIONAL BILLFISH TOURNAMENT August 10–17. Largest billfish tournament in the world takes place in Kailua-Kona on the Big Island and features a parade, lectures and public weighing of the marlin at 4:00 p.m. each day at Kailua Pier. Will be televised by ESPN. Conservation measures and research also displayed. Call: 329-6155.

GRAND CHEFS ON TOUR August 12– 18. John Harings of L`Auberge de Sedona and Gerard Reversade of Gerards on Maui share their techniques at Kea Lani Hotel, Suites & Villas in Wailea, Maui. Call: (800) 659-4100.

TASTE OF LAHAINA August 13–15. Cooking demonstrations, wine tasting and entertainment at Lahaina Center. Call: 667-9175.

AZEKA RIB COOK-OFF August 15. Kihei Maui is host town to this paniolo barbecued rib contest at Azeka Shopping Center. Call: 874-8700.

KAUAI COUNTY FARM BUREAU FAIR August 15–18. Displays of livestock, flowers and produce on The Garden Island, carnival rides, games, food and demonstrations of arts and crafts in Lihue. Call: 828-2120.

HAWAII INTERCULTURAL DANCE & MUSIC FESTIVAL August 16–25. Hawaiian, Pacific, Asian, African and American dance classes and demonstrations by master instructors and performers. Held each year at Kalani Honua Retreat and Conference Center in Pahoa on the Big Island. Call: 965-7828.

DAVE BARRY ON LANAI August 17. Pulitzer Prize winning humorist Dave Barry shares his wit and writing skills on the island of Lanai. Call: (800) 321-4666.

EIGHTH ANNUAL MOLOKAI MUSIC FESTIVAL August 17. Hawaiian singing, dancing, crafts and foods are presented on the grounds of the historic Meyer Sugar mill on the most Hawaiian island, Molokai. The event is to be held each year on the Saturday following Admissions Day, which celebrates statehood. Call: (800) 553-0404.

DUKE KAHANUMOKU CANOE RACE August 18, sponsored by Lanikai Canoe Club, men's race from Kailua Beach to Hilton Hawaiian Hotel Pier women's race from Kailua Beach to Smith Point. 8:00 a.m.

WILSON KAPALUA OPEN TENNIS TOURNAMENT August 20–28. Top tennis players in Hawaii compete for a $10,000 purse at Kapalua Tennis Garden on Maui. Call: 669-5677.

12th KAUAI MOKIHANA FESTIVAL August 20–28. A series of cultural events around the island of Kauai include a composers contest, flowerless lei-making contest,

Continued on page 24

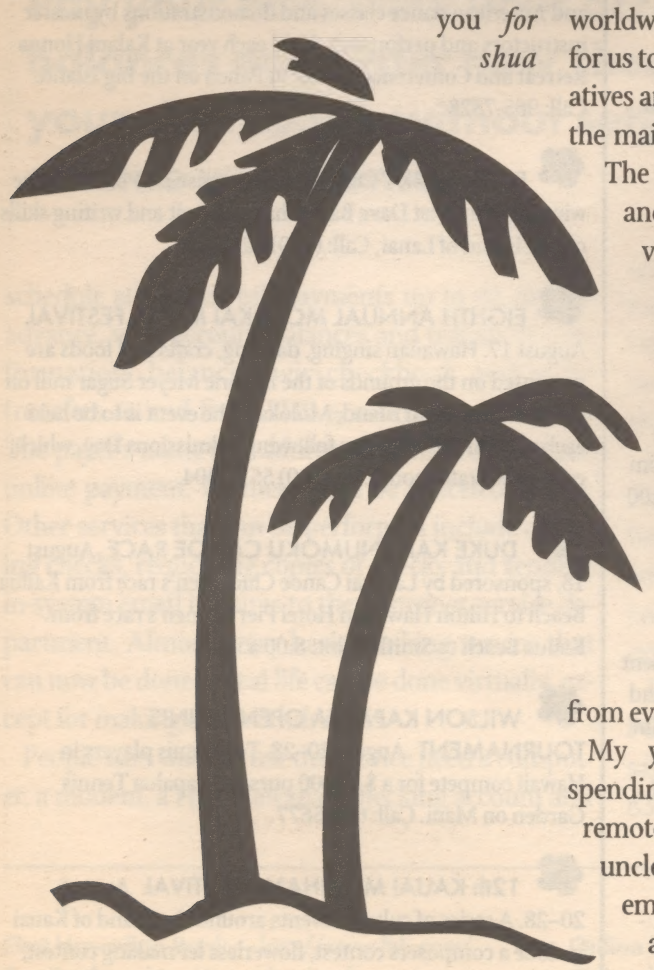
Letter From Home

By SahoniRedbird English

Aloha from Molokai — The "local" island. Yes, I know it is called the "Friendly Isle" by some, but we are here to give you the truth. There are more Hawaiians and other locals here than anywhere in the islands. The lifestyle is comparable to living in the 1950's. We don't have to lock our doors or worry about leaving things in our cars — unless we are in an area which may be "public" in the sense of being frequented by outsiders. After all, people from all over the world come here. So I lock my car when I'm in town.

In many ways we are very isolated. We are cut off from the rest of the State geographically, politically and even spiritually. This island has always been known for spirituality. Ancient peoples came here to train to become experts (kahuna) in various fields, including the priesthood. There is still a strong spirituality here. Perhaps the strength has been in Molokai being relatively untouched by the outside world. The desire here is to keep it so.

Isolation has its pros and cons: A special thing about living here is drawing on the strength of the quiet, laid-back lifestyle so unique to this island. Having traveled a lot the past few years doing disaster work, I can tell you *for sure* that there's no place like home." Molokai is the quietest place I have ever experienced . . . and for those of us who like the quiet, the Internet is the perfect communication. It is a blessing to be able to live here and benefit from the spiritual healing in the quietness. People come here all the time, especially locals from other islands, to rest and refresh themselves. Because of our lifestyle, we can also be very cut-off from the rest of the world which isn't always necessarily to our advantage. Until recently we had only TV and radio, our two weekly newspapers and word-of-mouth to keep us informed. We were usually behind the times and really didn't care that much. In recent years a lot of things are happening which draw our attention to what is going on statewide. Now we are ready for the fabulous communication opportunities of today's cyberworld: Internet comes to Molokai.



We need to keep up on what's going on around us; we have now learned it affects us. And we need to be alert and informed. Through the Internet, we can find out for ourselves what's going on. And we can tell each other: Unity through education. The main use for Internet here seems to be the same as it is worldwide: email. It is more than wonderful for us to be able to be in touch with friends, relatives and loved ones not only in the world, on the mainland, inter-island but also on-island. The news received and shared is up-to-date and not two weeks old like what we receive via "snail mail." I have mailed a card to a friend here on-island and actually had them receive it five days later. For some reason it went to Honolulu and back. Correspondence from outside the islands is always outdated. Many of us here can not afford to pay big phone bills so email is truly a blessing for us. We may be a little island which is part of the most isolated land group in the world, but we are no longer cut-off from everything and everyone.

My youngest son just returned from spending three months on the mainland in a remote area of the Navajo Reservation. His uncle was able to send us a call for help via email. Where he lives, in the Black Mesa area, is even more isolated in some ways than we are here. They live in hogans

See HOME; page 28

Industry NewsBytes

MasterCard & GTE in electronic certification deal

The race is on to provide extensive, secure electronic commerce over the Internet. Now MasterCard International and GTE Corporation have announced plans to deliver electronic certification services under the new Secure Electronic Transaction (SET) standard.

A major obstacle to electronic commerce on the Internet is not the lack of suitable technologies, but public distrust in having to send credit card numbers electronically, with the perception that they can be easily intercepted en route. Industry experts say the public needs some sort of proven online security methods backed by financial and online heavyweights such as MasterCard.

A sort of digital certificate will be developed by the two companies that will protect both the consumer and vendor against unauthorized card number use. The digital certificates will reportedly be issued via the Internet to card holding consumers, Internet merchants and institutions processing the transactions.

The companies say that the SET standard appeared first in June and that software to allow it to be incorporated into Internet browsers, servers and gateways will be available by the early fourth quarter from several vendors. The standard was developed by MasterCard and Visa in cooperation with a number of other companies, including GTE, IBM, Microsoft and Netscape.

Said Steve Mott, senior vice president, Electronic Commerce/New Ventures at MasterCard. "Obtaining digital signatures is expected to be no more difficult than signing up for an online service. We are also pushing to extend SET certification to chip cards to get added hardware/platform security and portability. We expect to extend our activities with GTE along these and other lines, so they are a key strategic ally for MasterCard and our members."

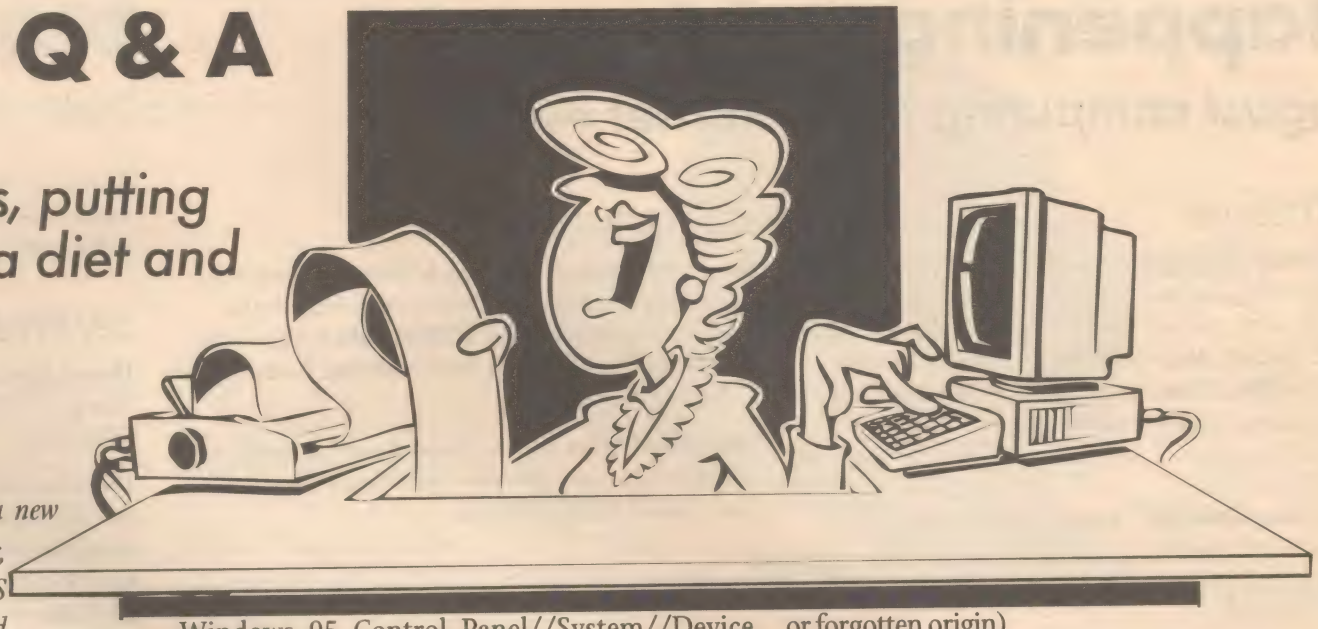
Mott added: "We will begin testing the software by the end of the summer and through the remainder of this year. The missing link (to online commerce) was providing digital certificates to add the extra software authentication needed to make SET complete."

GTE plans to offer both certification authority products and services under the CyberTrust brand name. CyberTrust will reportedly support all popular Web browsers, servers, and other public key enabled applications, such as secure email and electronic data interchange.

Windows Q & A

By Jim Aspinwall

Stubborn printers, putting Windows 95 on a diet and buggy programs



Where's the print?

QUESTION: *I recently purchased a new computer, and unlike my old computer, under Win 3.1, I have to use the LPT DOS port. On my cheap old computer, I used the LPT1 port. When I installed Windows 95, I found that there was no LPT DOS driver or anything which would allow my printer to work. LPT1 wouldn't work, nor would any of the others. Is there a downloadable file I could obtain that would allow me to print? Or is there something I can do to the configurations?*

ANSWER: First, be sure that your system hardware really has a properly configured printer port. Verify the jumpers or switches on your LPT port add-in card, or, since many new systems have the LPT port on the system board, be sure that the port is enabled and properly configured by parameters in the system setup program.

If your system setup program controls an on-board LPT port, and you have the option of selecting a "Compatible" mode, "ECP" or "EPP" mode, try changing this configuration to the "Compatible" mode.

Does an LPT port appear in a system information screen? (such as those that appear with AMI BIOS)

Does Microsoft's MSD or other diagnostic software detect and report that a printer port exists, and if so, at what address?

Can you successfully use the DOS copy command to copy a plain text file (such as config.sys or autoexec.bat) to LPT1 or PRN? (At the "C" prompt, try typing copy config.sys LPT1 and then press "enter.")

The preference for an LPT1 port would be 378h using IRQ 7.

It is possible that you have a device conflict with perhaps a sound, SCSI or network card at a nearby address (360h or 370h.) Try another address for either the LPT1 port or the other potentially conflicting I/O devices.

Failing successful printing after any of these configurations and simple tests — the port may be defective — which can mean that some of the system board is defective or your I/O card is defective.

The address and IRQ for the port should appear or may need to be configured manually in the Windows 95 Control Panel//System//Device Manager dialog for Ports, and set up as the proper port for your default printer.

Depending on the printer you have, the driver for it may be bad, and you might be able to find a replacement on your printer vendors Web page or support forum, or on the Microsoft Web page - **www.microsoft.com**.

Windows 95 spring cleaning

Q: Could you tell us which files you can now safely erase from Windows 95 system? And those that maybe you can erase? I find all sorts of clutter on my system leftover from various installs. What about all those old DOS files and other stuff?

A: Windows 95 leaves us with a lot of helpful "stuff" laying around in various subdirectories on our drives, stuff we probably never look at, like all those "readme" files for things like the unusual "Grundwell Sound and Keyboard Macro I/O Card" and such.

If we've installed Windows 95 over a Windows 3.x setup, there are quite a few old Windows 3.x files we'll never miss, because they are replaced by newer files in different places.

Likewise, as we install and remove and reconfigure new software and hardware goodies, backups and temporary files seem to grow like weeds in a marsh bed. Most of this "stuff" can be deleted without harm.

I just gained back about five megabytes of disk space by deleting the following file types from both the \WINDOWS and the \WINDOWS\SYSTEM subdirectories:

- .bak
- .old
- .tmp
- .txt
- .wri
- .### (a bunch of sequentially numbered files from successive installs of unknown or forgotten origin)

Additionally, though not a significant amount of drive space was taken up, I deleted the files and subdirectories involved with the \WININST0.400 subdirectory.

If you look through the \PROGRAM files subdirectory you may find duplicates of the "Common" files and subdirectories if you have to do repeated installations of Windows 95 or MS Office 95 (which usually puts its common programs, Art Gallery, MS Graph, etc., into the MSOFFICE subdirectory as well.)

If you have sequentially numbered Program Files 1 through Program Files "n" or Common~1 through Common~n directories, chances are multiple Windows 95 installations ignored the existing files and created new ones. The most recent (highest numbered) directory is the current one, but be careful, as some application links may still refer to files in the prior directories, too.

You should be able to delete almost all older Windows 3.x files, sorting the Explorer display by file date and time, then marking and deleting those that are from 3-10-92 at 3:10 am (Windows 3.1) 11-01-93 at 3:11 am (Windows 3.11) or 12-31-93 at 3:11 am (Windows for Workgroups 3.11), but I'd leave these for assessment by an "un-installer" utility.

For the best spring cleaning, the "un-installer" utilities such as Vertisoft's Remove-It version 3.x, Quarterdeck's Clean Sweep 95 or others are preferred. These utilities have built-in databases and detectors of which files are duplicates, unused or otherwise eligible candidates for removal from the system. They can also track the installation of new programs so you can remove them completely later on without a lot of manual disk searching and "ini" file editing.

Major upgrade hiccups

Q: I just upgraded my 60 MHz Pentium system with

See WINDOWS; page 25

Happenings

August computing and Internet events

6/Tuesday

Cyberpizza. An informal networking forum for entrepreneurs, computer programmers, network administrators, Internet users, etc. Guest speakers vary from month to month. Meets at the Manoa Innovation Center, 2800 Woodlawn Drive, Training Room (170) of the Digital Media Laboratory. $6 per person for pizza and drinks. Contact: Eran Agmon at 831-0600 or Courtney Brown at 595-1000. 6:00 p.m.
http://www.aloha.net/~epizza/cpizza.html

8/Friday

Electronic Pizza. Founded in 1984 to provide a forum for engineers, computer programmers, network administrators, entrepreneurs, etc. to learn about the latest electronic technologies. Meets at Manoa Innovation Center, 2800 Woodlawn Drive, Second Floor Conference Room. Different speakers every month. $6 for pizza and drinks. Contact: Eran Agmon at 831-0600 or Courtney Brown at 595-1000. 6:00 p.m. **http://www.aloha.net/~epizza/index.html**

Maui Apple Users Society. Meeting for new users. Maui Electric. 7:00 p.m. Contact: 1 (808) 879-0443.

15/Thursday

Advanced Internet Workshop & Clinic. Sponsored by Hawaii Macintosh & Apple Users' Society. Meets in the auditorium/chapel, 1st floor at The Arcadia 1434 Punahou Street from 7:00 to 9:00 p.m. Public welcome. Contact: Bryan Villados at 596-6239.

Maui Apple Users Society. General meeting, usually more technical than meeting for new users. Maui Electric. 7:00 p.m. Contact: 1 (808) 879-0443.

17/Saturday

Webgrrls. Meets at Honolulu Community College, Building 2, Room 516. A networking group for women interested in technology and the Internet. 10:00 a.m. to 11:30 a.m. Contact: **hawaii@webgrrls.com.**

19/Monday

Apple Brown Bag Clinic. Throw your Apple equipment into a paper bag and bring it to this help clinic for beginning and veteran Apple and Macintosh users. Meets at the Rehab Hospital of the Pacific cafeteria (226 North Kuakini Street). Public is welcome. 6:30 to 9:00 p.m. Contact: Bryan Villados at 596-6239.

28/Wednesday

Hawaii Telecommunications Association. Meets at the Hale Koa hotel. Contact Sandra Ohara at 526-1551 for more information.

The Hawaii Webmasters sometimes meets virtually (Kevin's Ewgie on the Web at **http://www.eit.com/ewgie/**), sometimes even physically, but most discussion is done via an email list. For more information email **bob@lava.net** or visit the Hawaii Webmasters Web site at **http://www.connect.hawaii.com/hc/webmasters/**.

Be warned, all events subject to change without notice, call in advance. Send notice of your computing and Internet events to **Hawaii's Web & Internet News.** *Email:* **kbucar@lava.net;** *snail mail:* **Hawaii's Web & Internet News,** *PO Box 15411, Honolulu, Hawaii, 96830-5411; fax: (808) 848-2823.*

OffRamp

Big help from the Small Business Pack

By David Plotkin

Starting a new small business is one of the riskiest things you can do. According to the Small Business Administration (SBA), half of new small businesses close within two years.

There are a number of reasons for this, but three stand out in my experience. The first, of course, is that the new business owner underestimates the market for his or her services or products. Secondly, the new business owner may not understand all the things required to start and run a business profitably. Finally, even if the new business owner is an expert in his or her field, he or she all too often simply doesn't have the necessary tools to properly administer the business.

In fact, I have run across business owners who seem to think that all they need is a computer and a copy of Microsoft Office (or an equivalent product suite) and they are all set. Come to think of it, a couple of Microsoft ads I've seen give that impression as well! The problem, of course, is that an office suite gives you the raw material to administer your business, but it still takes a lot of work to turn those raw materials into the tools you need. For example, you still have to create your fax templates, invoices, business plans, employee database, estimating sheets, time cards and all the rest. Now, the Microsoft Small Business Pack comes to the rescue, providing those missing tools, and helping the small business owner concentrate on other things.

Starting out

The Microsoft Small Business Pack installs easily, and is accessible from the same shortcut toolbar as Microsoft Office. A variety of icons provide access to a comprehensive, interactive "Help" system as well as groups of business tools arranged by category: Financial, Management, Marketing, Operations, Planning, and Sales. Clicking on any of these icons opens an "Explorer" window that displays the tools (Word documents, Excel spreadsheets, Powerpoint presentations or Access databases) related to the category and you can launch the document simply by double-clicking on it. However, as we shall see later, the best way to get at these tools is through the Help system.

Information on tap

The Small Business Pack Help system provides a wealth of information on starting and running your small business. Most of the general information is grouped in a section entitled "Using the Business Guide." Within this section of the Help system, you can access panels of information on Business Development (including Business Planning, Raising Money, and Goals, Motivation and Training), Marketing and Sales, Operations, Administration and Financial considerations.

Within each topic, you can "drill down" to more and more detailed levels. For example, within the Business Development/Business Planning subtopic, you can do a "Business Assessment" to determine your chances of success. Many of the detailed topics take advantage of Win 95's interactive Help feature, enabling you to fill out checklists right in the Help system, branch to another topic or even launch the form that implements the topic being discussed. Many important topics are discussed, including legal considerations, insurance, obtaining capital, sales, advertising and promotion tips, hiring and managing employees, record keeping requirements, accounting and budgeting. However, the treatment of many of the topics is quite superficial, probably due to the generic nature of this package.

Getting down to business

The real heart of the Microsoft Small Business Pack are the documents and the Business Database. A huge number of documents are available (grouped

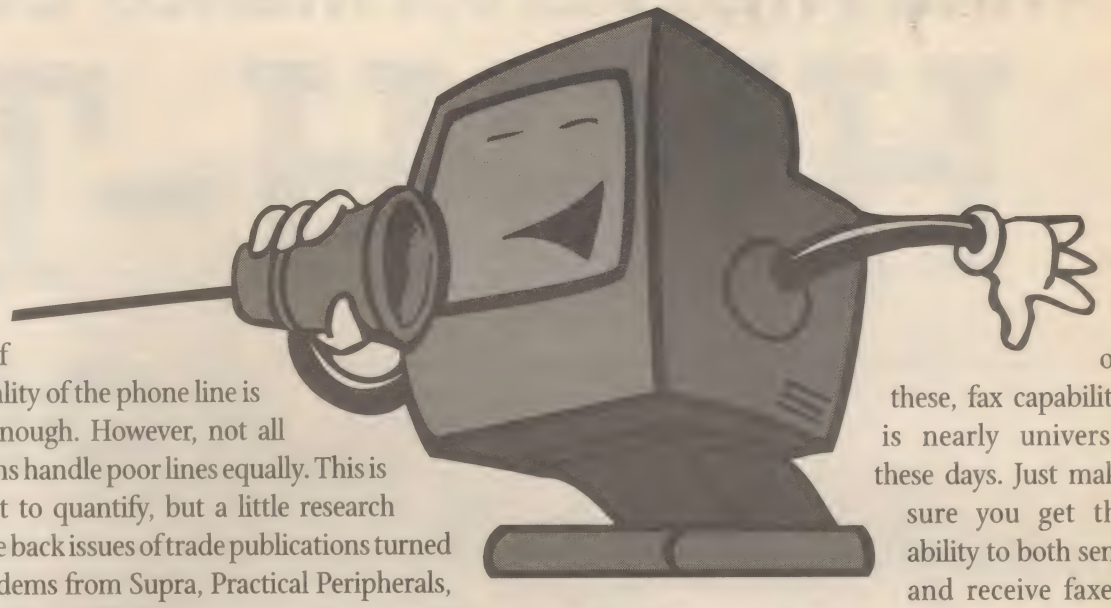
See OFFRAMP; page 24

The Mac Beat

How to buy a Mac modem

Look for speed, Mac know-how, but don't look for features

By John Rizzo



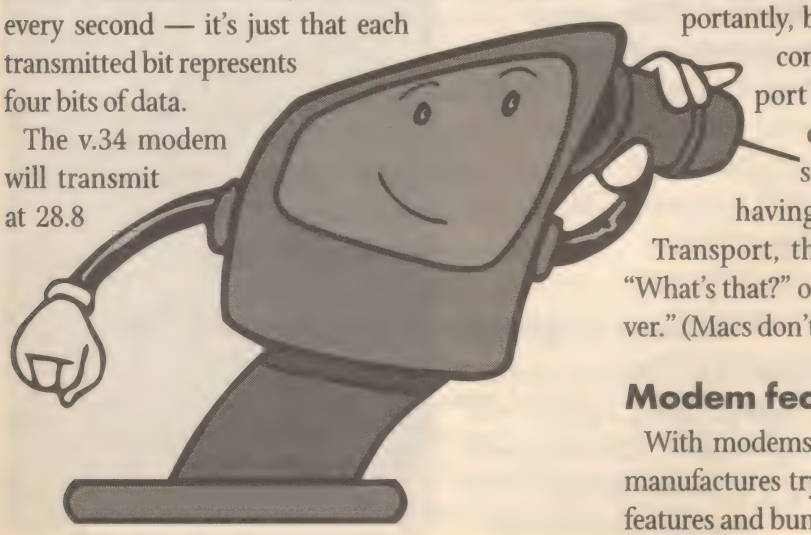
So, you've discovered the Internet. You've also discovered that accessing the Internet with your old 9600 bps (bits per second) modem is like commuting to work on a riding lawnmower.

The good news is that for about $150 to $250, you can pick up a speedy new modem. There are only three things you need to know. First, you want a modem that supports the v.34 modem standard, which moves data at 28.8 kbps. You're not going to save much money with a slower modem and you'll end up spending more in online costs. Second, you're better off getting a modem from a company that knows Macs. Third, know what features you want. There aren't all that many features that are worth paying extra for.

Speeds and standards

Don't let anyone tell you that 14.4 kbps or 19.2 kbps is enough speed. For the World Wide Web, even 28.8 kbps isn't fast enough, but it's all we have unless you go to something more exotic, like ISDN or cable modems (more about those later). The v.34 standard is called the "final" modem standard — it may get a little faster, but the days of modem speeds doubling every two years are over. The problem is we've nearly reached a physical barrier that prevents analog signals from being transmitted over telephone lines any faster.

Modems can get effective throughputs that are up to four times faster than 28,800 bps using compression techniques. This is why your communication software may tell you've connected at 115.2 kbps. (Power Mac serial ports can send this much data to the modem, but some 680x0 Macs can only send 56 kbps to the modem.) However, the modem still only sends a maximum of 28,800 bits over the line every second — it's just that each transmitted bit represents four bits of data.



The v.34 modem will transmit at 28.8 kbps if the quality of the phone line is good enough. However, not all modems handle poor lines equally. This is difficult to quantify, but a little research into the back issues of trade publications turned up modems from Supra, Practical Peripherals, Motorola and US Robotics as good performers.

One modem you shouldn't have on your list is Apple's software Express Modem, which works with Apple's GeoPort Telecom Adapter. GeoPort can be used with some really innovative telephony software. Unfortunately, it still only operates at 14.4 kbps. The rumor mill says that 28.8 kbps is coming out this summer. Maybe, but after two years of Apple hinting that 28.8 GeoPort is just around the corner, I have to recommend that people skip it for now.

Buy from a Mac company

Modems are cross-platform devices. They use the same commands on Macs and PCs, and except for the cable, contain the same hardware in both versions. The exception is internal PC modems that sit on expansion cards — these won't run in Macs. There is nothing preventing you from buying an external PC fax/modem from a PC company at a good price and then buying fax software from a Mac software company. You can even get decent shareware fax software. ValueFAX is one that works well. You can buy a Mac modem cable separately, and most modem users never need to open the manual.

I don't recommend this course. Besides being easier to get everything you need in one package, buying a Mac modem will prevent you from having to choose "Hayes-compatible generic modem" when you set up your communication software. More importantly, buying a modem from a Mac-savvy company gives you access to tech support personnel who know your computer. When you call up a tech support line and report that you're having trouble with MacTCP or Open Transport, the last thing you want to hear is "What's that?" or "Try reinstalling your modem driver." (Macs don't use modem drivers.)

Modem features

With modems being low-cost commodity items, manufactures try to differentiate their models with features and bundled software. The most important of these, fax capability, is nearly universal these days. Just make sure you get the ability to both send and receive faxes. There are only a few other features worth paying for. The ability to carry voice will let you use your Mac as an answering machine or speakerphone. You need the right software, but this often comes with a voice modem.

Some modems promise attendance-free operation, and don't have to be manually reset when a connection doesn't go through. However, these are usually modems designed to be with communications servers, and you may pay for network management features you don't need. Hardware features, such as rows of blinking lights and LCD screens, just aren't useful to the average user. If you have a problem, turning the modem off and on usually fixes it.

Beyond the modem

For speeds beyond the limits of analog telephone lines, we have to look not at analog modems, but at digital technology, such as ISDN or cable modems. There is no such thing as a "digital modem" because modems are analog by definition. Devices that use the term are not modems at all, but are ISDN adapters, which cost in the $500 to $1,000 range. Telephone companies in most populated areas can install an 128 kbps ISDN line. You'll also need someone else with ISDN to connect to, such as an Internet provider. America Online and CompuServe don't have ISDN access at this time.

Cable TV operators are promising faster, cheaper digital service with cable modems, digital devices that use the TV cable as a communications medium. Talk about cable modems at this point is still mostly in the future tense, however. Unfortunately, Internet publishers don't seem to have grasped this and continue to designing Web sites as if everyone had one of these high-speed connections. For now, an investment in a simple v.34 modem makes the most sense.

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Maui High Performance Computing Center

HIGH-TECH on Maui

By Reid Yoshida

Sitting majestically with the sun reflecting off its black, platinum-stained windows, the Maui High Performance Computing Center (MHPCC) appears to be a futuristic cathedral beckoning the computer gods for power. MHPCC prayers must have been answered because today it stands as one of the world's most powerful computing centers offering the capabilities to solve some of today's most complex computational problems.

MHPCC was established with Department of Defense funding and is the newest of 20 national supercomputing centers located across the United States. The U.S. Air Force Phillips Laboratory awarded, via a competitive bid, a cooperative agreement to the University of New Mexico to create and manage MHPCC. This cooperative agreement includes other institutions and companies that lend their expertise in problem-solving matters. These companies and institutions include IBM Corporation, Carnegie Mellon University Imaging Group, Cornell Theory Center, Environmental Research Institute of Michigan, Numerical Algorithms Group Inc. and SETS Technology Inc.

One of the unique things about MHPCC is that unlike most computing centers in the U.S., MHPCC is not located on a military base nor on an academic campus. It's located in the Maui Research and Technology Park in Kihei.

Fifty percent of MHPCC's time and resources are used for government projects sponsored by the DoD High Performance Computing Modernization Program. The remaining percentage is sold to commercial, educational and other defense department and government institutions. Institutions that utilize services provided by MHPCC include The State of Hawaii Department of Education, University of Hawaii, Hawaii Pacific University, Brigham Young University Hawaii and Chaminade University.

So why establish such a powerful computing center on Maui?

MHPCC's mission is to assist the United States Air Force Maui Space Surveillance Site (MSSS) which monitors and tracks space objects. "Our core mission is to support the telescopes on Haleakala," said Margaret Lewis, MHPCC's Associate Director of Marketing & Outreach.

Since MHPCC emphasizes space technology research, a key focus is the development of advanced image-processing and visualization technologies. This places MHPCC as a world leader in efforts for processing and enhancing electro-optical sensor

Innovative training and educational programs (pictured left) MHPCC offers workshops that focus on parallel programming and other aspects of parallel computing. Additional classes in IBM RS/6000 SP system installations and 3D modeling software are being planned for the near future.

Powerful computing (pictured right) Silicon Graphics Onyx RealityEngine2 Systems with four processors, 128 megabyte memory, 4 gigabyte disk and a 40 megabyte frame buffer.

Maui High Performance Computing Center: Bringing world-class computing technology to Hawaii.

data. Furthermore, along with private industry partners in the entertainment, biomedical and architectural communities, MHPCC is continually researching better methods of processing 3D image data.

Attractions for engineers and scientists who visit or work in the center are the Silicon Graphics Onyx Reality Engine2 and the IBM 400-node IBM RS/6000 Scalable POWERparallel (SP) supercomputers.

The Onyx Reality supercomputer is used in 3D-imaging design and modeling.

"It's the kind of machine that would be used for special effects in movies like Jurassic Park," Lewis said. The IBM SP supercomputer has the computational power of more than 125 gigaflops and is used for comprehensive scalable parallel technologies. This computer has the ability to calculate 125 billion scientific calculations per second!

In addition to the supercomputers, MHPCC has excellent connectivity to the Internet via a transoceanic fiber-optic cable. This connection provides transmission speeds of up to 45 million bits of data per second and connects MHPCC to the U.S.'s major Internet backbone. In addition to connection to the Internet, MHPCC is connected to a variety of networks.

Besides government and large companies benefiting from the use of MHPCC resources, local businesses can benefit from MHPCC's large information pool as well. "Economic development is very important to us," Lewis said, "and we've been trying to help small businesses in Hawaii that need our kinds of resources." Local companies who have tapped MHPCC's vast library of knowledge include: Tripler Hospital (medical research), IBM Honolulu (database theory), and two digital art firms on Maui (advanced imaging technology).

The advanced power and technologies that MHPCC commands has attracted potential users from all over the world. This has resulted in stimulating the state's robust tourist industry. "An interesting impact that we're having is that a lot of people are coming to visit our center. So we're attracting about 150-200 people every month," Lewis said. In July they had a large database demonstration that attracted 150-200 people from the Pacific Rim area.

Along with the Pacific Rim invitees, IBM Honolulu, IBM's business partners, Hawaii Pacific Council's Asia steering committee, and an optical conference centered around the new technology involving the telescopes, visited MHPCC. "So we're bringing a different kind of tourism to Maui; a more directed type of tourism," Lewis said.

MHPCC's power and technology is mind-blowing and may seem too high-tech for the average PC user. But believe it or not, MHPCC does offer services and classes that may assist those interested in its resources or solve individual computer problems. Besides having its home page on the World Wide Web, MHPCC periodically opens its doors to the general public.

Workshops on the Internet, parallel programming as well as different aspects of parallel computing are available. Additional courses in IBM RS/6000 SP system installation and 3D-modeling software are available for those wishing to acquire this technical service. Other seminars and classes are available and are posted on MHPCC's home page via the Internet.

MHPCC's strong support programs, hardware and software resources, training materials and an expert staff provide its customers with a level of service that is unrivaled. Since its official opening in August 1994, MHPCC has opened up a new array of opportunities to the people of Hawaii and it's comforting to know that somewhere in the vast nebula of computer space, the computer gods are smiling.

Maui High Performance Computing Center
550 Lipoa Parkway
Kihei, Maui 96758

Phone: (808) 879-5018 or (800) 309-MAUI
Email: info@mhpcc.edu
World Wide Web: http://www.mhpcc.edu

Web Watch

Virtual Waianae

By Kristine Bucar

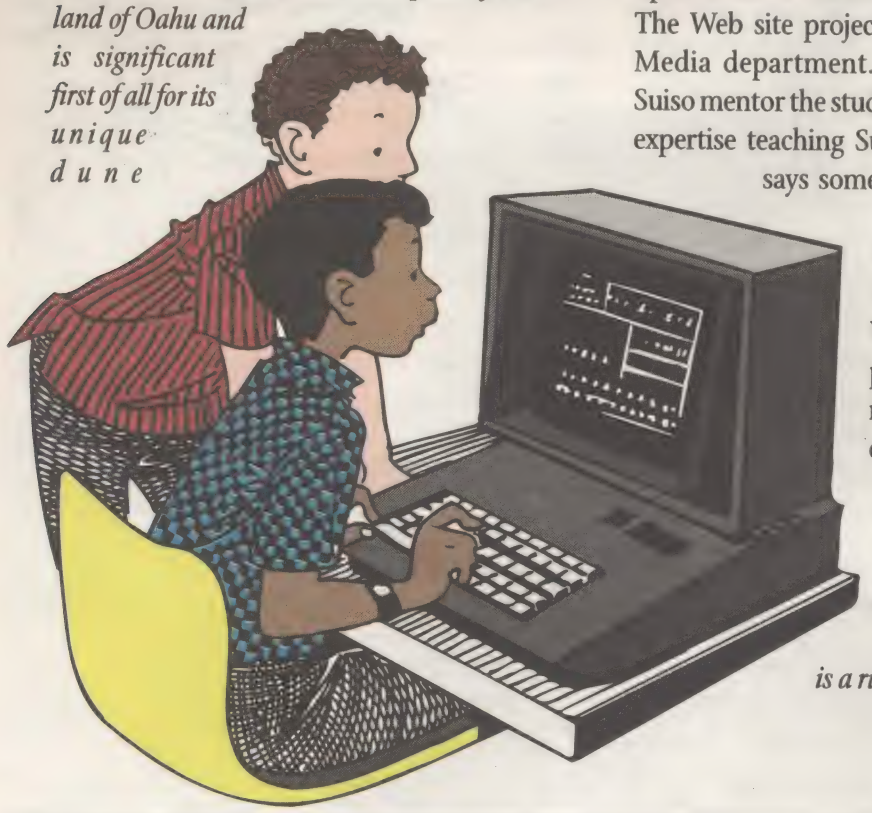
Hey, Waianae!

The Virtual Tour of the Waianae Coast, part of the Waianae High School Seariders Web site, won third place in the Local Attractions category of CyberFair '96. Over 10,000 students from 360 schools representing 30 countries participated in the online awards ceremonies, May 13, as the winners were announced.

The Virtual Tour of the Waianae Coast starts with an appropriate question: "Where is Waianae?" A globe and map show where Waianae is in relation to Hawaii and the rest of the world. The next page of the presentation prompts the virtual visitor to choose a place on the coast to visit, anywhere from Kaena Point to Nanakuli.

The Kaena Point pit stop exhibits a spectacular aerial photograph of Kaena Point as viewed from sea. It's a snapshot of Oahu that represents a view that most people would never otherwise see. Several individuals from the Waianae community as well as state organizations provided information to the young Web masters, including The Hawaii State Department of Land and Natural Resources, Hawaii State Archives and The Leeward Coaster. The text for Kaena Point reads:

Kaena Point is the westernmost point of the island of Oahu and is significant first of all for its unique dune ecosystem found nowhere else in the world and secondly, because it had religious value, being the point where the ancient Hawaiians believed to be the Leina or jumping off point to the spirit world . . .



At each spot along the Virtual Tour, visitors can view photos and read about the legends, history, ecosystems and memories of the Waianae Coast.

Other sections relate how Waianae got its name and provide a little information about Waianae's around the Pacific Basin. Yes, the students tracked down legends and histories of similarly named coastal spots in New Zealand, Samoa and French Polynesia.

Anthony Chavez, Carly Antone, Alton Exzabe, Jovan Rosa, Justin Gomban and Matthew Goff made up the team of students that created the Virtual Tour. The Web site project is part of the school's Mass Media department. Norman Chock and Candy Suiso mentor the students. Chock provides technical expertise teaching Suiso and the students, but he says some of the students surpass him.

Chock would like to have the students start developing some virtual reality for the Web site. "That's the exciting part," said Chock, "always moving to the next step, to the edges of technology."

The online "project narrative" for the Virtual Tour provides some background on the Waianae area:

The Waianae Coast of Oahu is a rural community with a population of about 42,000 representing 15 ethnic groups including Hawaiians, Samoans, Chinese, Japanese, Tahitian, Koreans, Laotians, Caucasians and Filipinos. Approximately 50 percent are Kanaka Maoli (native-Hawaiian or part-Hawaiian). Many of the households are single parent homes, and unemployment among adults is 8.1 percent (over two times the island average). Twenty percent of the households on the coast receive less than $15,000 and a half of the households receive support from social agencies. Nearly 50 percent of the population of the area are 19 years old or younger . . .

Waianae's Web Team: (Back row, starting from the far left) Anthony Chavez, Carly Antoe, Justin Gomban and Matthew Goff. (Front row, from left to right) Jovan Rosa and Alton Exzabe.

Several other sections besides the Virtual Tour comprise the Seariders Web site. A digital bulletin of Waianae High news and announcements, information about the campus and school programs and a community calendar are all available. Hyperlinks lead to other Hawaii schools on the Web and student resources. Visitors with the Real Audio program can listen to Waianae's alma mater. Visitors can read about Waianae's distinguished alumni such as Hawaiian Moving Company's host Andy Bumatai, City Councilman John DeSoto and sumo wrestler Fiamalu "Musashimaru" Penitani. The Waianae High School Graphics Arts Gallery showcases student art and photos.

Check out this site:

Waianae High School Searider Homepage — *http://www.aloha.net/~waianhi/*

Web Shots

Listed below is a sampling of pages from Waianae High School's vast web site:

1. **Searider Front Page**
   Plenty to choose from
2. **Where is Waianae?**
   Virtual Tour's opening web page
3. **The Waianae Coast Online**
4. **Kaena Point as viewed from the air**
5. **Art from the Searider Virtual Gallery**

❶

Netscape: The Wai'anae High School Searider Homepage
Location: http://aloha.net/~waianhi/
What's New? What's Cool? Handbook Net Search Net Directory Software
Homepage of the Waianae Seariders
WAIANAE HIGH SCHOOL SEARIDERS
Aloha pumehana kakou. E kipa mai i ka makou 'aoao 'upena! Welcome to the Wai'anae High School Searider website. Our 2,250 students and staff welcome you from the Wai'anae Coast of the island of O'ahu in Hawai'i, U.S.A. where our school may be the only school in the nation located on a beach.
This site is best viewed with Netscape Navigator 2.0 or higher.
The Wai'anae High School Complex Bulletin
Current News and announcements from the Wai'anae School Complex.
A Virtual Tour of the Wai'anae Coast
Maps, history and legends of the Wai'anae Coast, this is our Global School Network International Schools CyberFair '96 Entry which placed third in the Local Attractions Category on May 13, 1996. For more information about this entry, you may also want to take a look at our Project Narrative.
Sports Program
A perennial state football power, Waianae has won more football championships than any other school in the Oahu Interscholastic Association (12 in the last 23 years).
Communications Programs
With well over 180 students enrolled in one or more of our communications classes, Wai'anae may have one of the largest programs in the state.
Other Exciting Programs at Wai'anae
There are some exciting things happening at Wai'anae and we'd like to share some of these in this section. Check out E ola!
Campus Information
Schedules, Calendars, Activities and other information for students and teachers.
Community Calendar and Support Services
Events and Support Services available to the Wai'anae Coast Community.
Alumni
Find out about the Wai'anae Alumni & Community Education Foundation & meet some of our distinguished Wai'anae alumni.
Surfing on the Wai'anae Coast
With two world-class surfing spots on the Wai'anae Coast, Makaha Point and Yokohama Bay, many surfers including Rusty Keaulana and Sonny Garcia live here.
Hawaii Schools on the WWW
HOTLINKS to Hawai'i schools on the Web.
The Wai'anae E-Mail, Personal Homepage and phone directories
Your link to students, faculty, staff and alumni via the internet or telephone.
Alma Mater
Come here to see and hear via Real Audio our Alma
rs. Office: 697-7017...Congratulations to Shantel Hose (97), Hawaii's Junior Miss 1996.

❷

Netscape: A Virtual Tour of the Wai'anae Coast
Location: http://aloha.net/~waianhi/locatn.html
What's New? What's Cool? Handbook Net Search Net Directory Software
A Virtual Tour of the Wai'anae Coast
Click on the following picture to start your tour.
Where is Wai'anae?
Hawai'i
Oahu

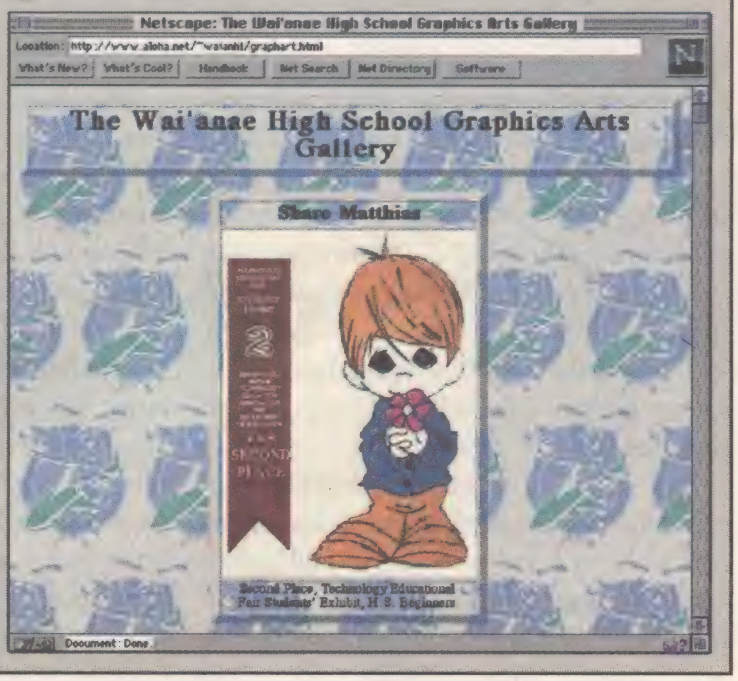
❸

Netscape: Welcome to the Wai'anae Coast of Oahu, Hawai'i
Location: http://aloha.net/~waianhi/vcoast.html
What's New? What's Cool? Handbook Net Search Net Directory Software
Welcome to the Wai'anae Coast on the island of Oahu in Hawai'i
How Wai'anae got its name
Wai'anae's around the Pacific
Select the locations in red you would like to visit.
Kaena Point
Makua
Keawaula
Mount Kaala
Oahu-Loko
Makaha
http://aloha.net/~waianhi/vcoast!.map?480,139

❹

Netscape: Ka'ena Point
Location: http://www.aloha.net/~waianhi/kaena.html
What's New? What's Cool? Handbook Net Search Net Directory Software
Ka'ena Point
Ka'ena Point is the westernmost point of the island of O'ahu and is significant first of all for its unique dune ecosystem found nowhere else in the world and secondly, because it had religious value, being the point where the ancient Hawaiians believed to be the Leina or jumping off point to the spirit world. In Legend, it is connected to the demi-god Mani.
Legends
Memories
Ecosystem
Wai'anae Coast

❺


Netscape: The Wai'anae High School Graphics Arts Gallery
Location: http://www.aloha.net/~waianhi/graphart.html
What's New? What's Cool? Handbook Net Search Net Directory Software
The Wai'anae High School Graphics Arts Gallery
Shane Matthias
Second Place, Technology Educational Fair Students' Exhibit, H.S. Beginners
Document: Done

Biotechnology, like software, will change the world

By Bill Gates

Sometimes people ask me what field I'd be in if I were not in computers.

I think I'd be working in biotechnology.

I expect to see breathtaking advances in medicine over the next two decades, and biotechnology researchers and companies will be at the center of that progress.

I'm a big believer in information technology and the way it is revolutionizing how people work, play and learn. But it's hard to argue that the emerging medical revolution, spearheaded by the biotechnology industry, is any less important to the future of humankind.

It, too, will empower people and raise the standard of living.

Researchers are expanding our knowledge of how the body works at the most fundamental level, and this knowledge is giving us a deeper understanding of diseases and how to treat them.

A great deal of work remains, but it's being accomplished at an accelerating rate by scientists worldwide who both compete furiously and collaborate with each other.

The mapping of the human geome will bring major breakthroughs in the fight against diseases.

When people hear the term biotechnology, they often think of gene-splicing and other forms of genetic engineering. This is an important branch of the science, but it's not the most critical part.

The biggest breakthroughs in medicine will result from the mapping and understanding of the human genome — figuring out the exact sequence of the 3 billion nucleotides that make up the estimated 100,000 genes that are the collective blueprint for human beings. It's an immense job.

If scientists were to identify the exact location of one tiny piece of genetic information per second, 24 hours a day, every day, it would take a century to map all 3 billion of them. Thanks to computers and specialized technology, researchers around the world are working at a much faster collective pace than that, and the project could be complete in as little as a decade from now.

So far the map shows most of the main features of the genome, and great detail about selective parts of it. To use a survey of Earth as an analogy, so far we've established the location of most countries and quite a few big cities, and we've made detailed maps of many important neighborhoods.

This research is a key to dealing with disease.

A disease for which there is no effective therapy is an unsolved mystery. Medical researchers need clues about how to devise an effective drug or therapy for the disease. What they need is a break in the case, a strong piece of evidence that can start them in the right direction.

One of the most promising ways to find this kind of clue is to compare in painstaking detail the genetic makeup of related people, some of whom have a disease that runs in the family and some of whom do not. The goal of this detective work is to find a mutant gene — one that has some of its genetic information scrambled — in the people who are afflicted.

Once a gene is associated with a disease, it can be used to find ways to interfere with the disease. If a drug or other therapy is found to treat people who have a genetic predisposition for the disease, it may well work for everybody else too.

I think we'll eventually devise therapies for most diseases, an achievement that would improve almost everybody's life at one point or another. It will take many decades, perhaps even several lifetimes, to reach this goal but every advance along the way is extremely worthwhile.

Biotechnology is not my line of work, but I enjoy following the progress as a hobby. I helped finance a molecular biology program at the University of Washington, and I sit on the boards of ICOS Corp. and Darwin Molecular Corp., both small privately held biotechnology companies.

See BIOTECHNOLOGY; page 25

Hawaii NewsBytes

Hawaii project wins Apple grant

MINNEAPOLIS, Minnesota. Nuuanu Elementary School and the University of Hawaii Information Technology Services won a grant to pursue an interdisciplinary study of water and share their findings via the Web. For the 17th consecutive year, Apple Computer Inc. has awarded grants to K-12 schools and teaching institutions as part of the Partners in Education program. Each grant recipient gets an Internet Web server which includes the Apple Internet Server Solution Kit. Students in grades four through six and participants of UH's Technology & Telecommunications for Teachers program will collaborate on the project.

Newsgroup created

The hawaii.gardening newsgroup was created to discuss the unique challenges of gardening in Hawaii. Suggested topics for discussion included organic gardening, pests and native species. Hawaii.gardening joins more than 25 other Hawaii-related newsgroups including the popular soc.culture.hawaii and another recently created group called hawaii.nortle.

The Web on TV

Peter Kay, president of CyberCom, joins Paul Udell on KITV's "Good Morning Hawaii" to offer a local slant on the computing and Internet industry. Computer Talk airs every Thursday and Friday at 5:50 am. When announcing the segment on the Net, Kay asked local Web surfers to send in their favorite Hawaii pages to **peterk@cyber-hawaii.com**. KITV airs a segment produced by clnet on Monday through Wednesday, at the same early bird time.

Internet Society — Hawaii Chapter created

The Hawaii Chapter of the Internet Society was formed earlier this year. Officers were temporarily elected and directors were elected for a term of one year. The Hawaii Chapter was formed for the general purpose of pursuing charitable, scientific and educational activities consistent with the Internet Society (ISOC) and to promote ISOC activities in the State of Hawaii. ISOC is an international organization for global cooperation and coordination of the Internet and its internetworking technologies and applications.

Let's continue to get wired

NetDay96 brought together volunteers throughout the country to help install network wiring. The *Let's Get Wired '96* Web site continues to promote the spirit throughout the year. The site encourages Web surfers to volunteer, organize or sponsor the networking effort. A searchable database of all the local schools provides contact information and an outline of any Hawaii's school current state of connectivity. Check for your favorite school at **http://www.getwired.k12.hi.us/**.

Send your news releases to **Hawaii's Web & Internet News**, *P.O. Box 15411, Honolulu, HI, 96830-5411; fax: 848-2823; email: kbucar@lava.net.*

Hawaii's CyberCafes

How 'bout some coffee with your Web?

Internet C@fe

24 hours on the Net

By Chelsea K. Aki

It's 9 p.m. on a Tuesday night at the Internet C@fe on Kapahulu Avenue. Despite the late hour and the fact that it is a week night, there is a crowd hovering over a series of glowing computer screens. Internet C@fe staffer Fred Dunnebier leans over to offer friendly advice to a computer user, while fellow worker Mark Ordenstein serves up aromatic cups of coffee and desserts. On another computer, two friends talk on chat lines and explore different Web URLs they've discovered.

Such is the nightly scene at The Internet C@fe which was voted "Best Place for a First Date" by the readers of *Islander Magazine*. "Because the atmosphere is casual and not intimidating, you can easily find out what the other person's likes or dislikes are through the search engines. It's cheaper than a movie and the process is a low-pressure thing," says Internet C@fe owner Michael Feeney.

The high-tech gathering place is Hawaii's first cybercafe of its size and scale. With 10 computer terminals, the cafe can accommodate both individual or group users with terminals to spare. The cafe is open 24 hours and employs 28 part-time workers, whose full-time jobs range from hackers to attorneys.

The cafe is more than a great meeting place for singles. A major goal of the cafe is to provide an "unintimidating" place for people to explore the Net, according to Feeney. As the cafe's majority owner, it has always been his dream to open his own cafe or bar. The added ambition to make it a cybercafe came after he observed a large number of such establishments while traveling in Paris and Berlin.

In addition to offering novice and advanced Net surfers computer time in an informal environment, the cafe conducts a variety of workshops, including an introductory class for those who have never used a computer or surfed the Net before. The beginner's workshops are usually sold-out at least two weeks in advance and reservations should be made early.

With a knowledgeable staff and 10 computer terminals available, the $6 hourly rate is very reasonable. Frequent repeat customers can purchase bulk time utilizing the cafe's "Serious Surfer" card. From midnight until dawn, students can use the cafe's word processors for $2 an hour. Email accounts are also available for $5 a month.

The Internet C@fe is open 24 hours a day, seven days a week, and is located at 559 Kapahulu Avenue. For more information, call 735-5282 or email at **surfbum@aloha-cafe.com**.

Coffee Haven

Cappuccino and computers in a relaxing atmosphere

By Ann Inoshita

Coffee Haven in the Kilohana Square building at the top of Kapahulu Avenue resembles a home more than a busy cafe. A stuffed couch, coffee table and lamp comfortably surround Macintosh computers. Customers sip cappuccino, Italian soda and Thai iced coffee or tea. Or they may opt for bottled water and fruit juices. The light menu includes muffins, scones, pies, cakes, cinnamon rolls and pasta dishes. Sandwiches, bagels and yogurt are also available for the health conscience.

"It's a wonderful place," says Coffee Haven customer John Male. "It's a cozy Internet cafe and not so crowded. I love the bagels and fruit juice, and they're really health conscious here."

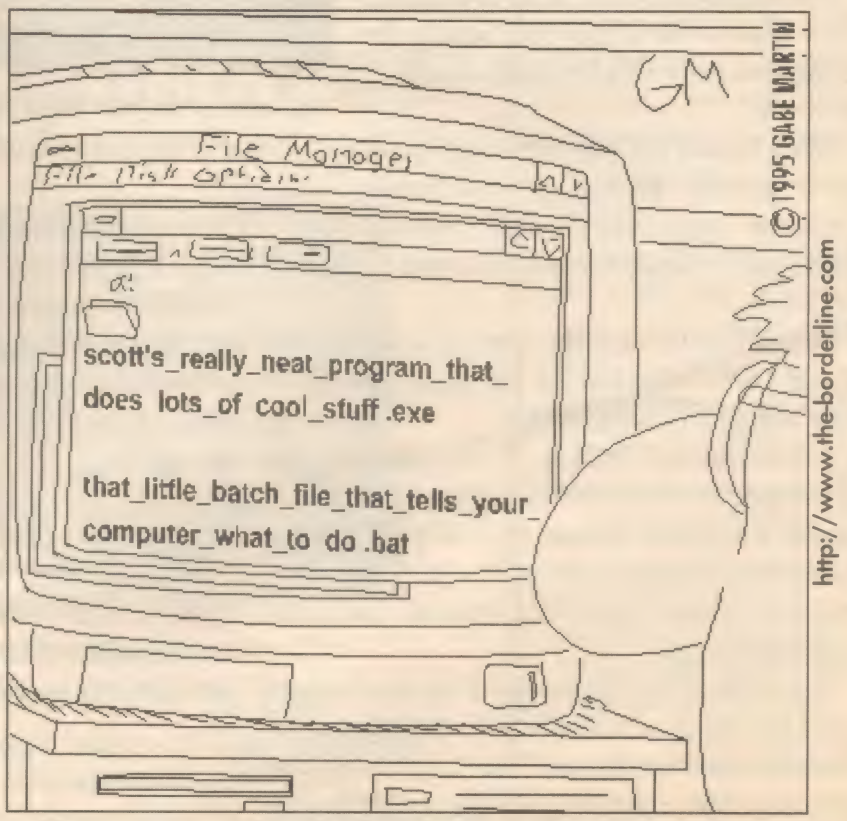
In addition, Male likes the Haven's convenient location and the prices, which are "better than a lot of other places."

Coffee Haven charges $4 for every hour on the Internet or $2 for a half hour.

The primary aim of the Haven is to have more people experience the Net, have fun going online, and enjoy the casual relaxing atmosphere, according to owner Teng Watson. Her helpful staff is ready to assist those who aren't familiar with computers or the Net.

A steady stream of customers throughout the week keeps the cafe friendly without being hectic. The Coffee Haven is open Monday through Thursday from 8 a.m. to 10 p.m. On Friday and Saturday the cafe is open from 8 a.m. to midnight, and on Sunday from 8 a.m. to 9 p.m.

The Coffee Haven is located in Kilohana Square at 1026 Kapahulu Avenue. Call 732-2090 or email **sip@coffee-haven.com** for more information.



Darryl began to wonder whether the new 255 character filename on Windows 95 was really going to be all that helpful.

Hawaii OnLine

The phenomenal growth of Hawaii's largest commercial ISP

By Ken Ray

Hawaii OnLine is the state's largest commercial Internet service provider. It has become the leader by consistently applying the latest technology available and appropriately matching it to the needs at hand.

Since its early days, the company has been involved in many high tech "firsts" for the Islands.

Hawaii OnLine began in November 1992 as a two-phone-line electronic bulletin board on Kauai. Founders Lynn and Thayne Taylor were among the first in Hawaii to make available a privately owned computer bulletin board.

"We were running an electronic message center on Kauai — literally an online outpost in the middle of the Pacific, back then — when Iniki (a category five hurricane) devastated the island," says Lynn Taylor. "That we survived those times is amazing. That we were able to grow it to become the largest company of its kind in the Islands is a miracle."

When Hawaii FYI, the state-owned computer gateway, hooked up with Hawaii OnLine in August 1993, the small Kauai bulletin board suddenly found itself serving 2,500 users statewide.

Hawaii OnLine was the first company to link Kauai, Oahu, Maui and the Big Island through its own high speed data network.

A scant year and a half after starting up as a regional bulletin board Hawaii OnLine became an Internet server and linked Hawaii with 40 million users worldwide. Utilizing a direct T-1 optical fiber link, the firm hooked up to the Internet via Sprint Communications.

While Hawaii OnLine was one of the first Internet providers along with FlexNet, Pacific Information Exchange, Inc., LavaNet and HulaNet there are now even more ISPs, providing healthy competition for Hawaii's online community.

So, where do you want to go?
HOL's colorful imagemap makes navigating their site a little easier.

Despite the growing crowd, Hawaii OnLine has remained in the forefront of the market by meeting demand through controlled growth, strong business ethics, creativity, and continuing innovations. It has pioneered inter-island video conferencing via the Net, and was the first to offer "safe" credit card transactions.

One of the company's most popular innovations is the creation of Planet Hawaii, a Web site providing a virtual holiday in Paradise. The brainchild of Eric Epling, Hawaii OnLine's creative director and cyber-architect, Planet Hawaii, which has won recognition as one of the "coolest" destinations on the web, includes six major segments.

These segments include Travel, Business, Activities, Culture, Publishing, Hawaiian Eye and Shopping. Hawaiian Eye provides virtual tourists with live scenes from the Aloha Tower Marketplace along Honolulu downtown waterfront. No matter what the weather is like at home, Hawaiian Eye will provide a sunny escape at the click of a computer key.

Virtual visitors can also make reservations at a local restaurant, book a Zodiac rafting expedition around the Na Pali Coast on Kauai, or check out the Hawaiian music scene. It's a virtual guide to all kinds of things in Hawaii that is tourist friendly with a snazzy brand of electronic aloha.

With so much success, it was inevitable that the company would attract the interest of larger players in the online industry. And so recently, the local company was bought by GST Telecommunications of Vancouver, Washington.

"We would have loved to hang on to the company, but we didn't feel we could keep up with its growth by ourselves," says Kitty Lagareta, Hawaii OnLine's executive vice president for marketing and public relations. "We realized some time ago that either we needed a strategic partner or we needed to sell."

Lagareta said the sale should mean good things for Hawaii OnLine subscribers, as the new owners will be able to infuse the company with new equipment and more support service. GST has also retained co-founders Lynn and Thayne Taylor, as well as Epling.

While GST brings know-how and capital to the firm, the Taylors and Epling will continue to inject Hawaii OnLine with creativity and innovations.

Check out these sites:

Hawaii OnLine — *http://www.aloha.net/* **Planet Hawaii** — *http://planet-hawaii.com/*

Computers Are for Everyone

Are you losing your memory?

By J. Woody Stovall

You lose two things very early in the aging process. First, the eyes go, and, uh, can't remember the other. I know, old joke, but true or not, you youngsters may be in danger, too.

The heart of a computer is its ability to remember. The CPU compares with the central nervous system. It sends out messages to other parts, telling them when and how to act. A computer's ability to remember derives from RAM (random access memory) and ROM (read-only memory). If the RAM or ROM forgets or can't tell the CPU the message it wants sent, you are through computing.

Let's first talk about the good news, the price of RAM. The first RAM I bought as a computer store owner five years ago cost $24.50 per meg and sold for about $34.95. The retail price of SIMMs (Single In-line Memory Modules) fluctuated like waves on a puddle until a factory in Japan that made 60 percent of the resin (raw material for memory chips) blew up.

Along with the explosion went RAM prices, up to $75 per meg for SIMMs. Supply and demand have won out and prices are now lower than I have ever known. Memory-hungry applications' demands have caused more to be manufactured, increased supply and forced a price drop.

Now that RAM is around $15 per meg and you can load 16 or 32 megs in your computer without taking out an equity loan on your home, a new and sinister threat surfaces. You may be losing your memory (computer, that is) while you surf the Internet. The problem is one of compatibility, inside your computer, not with your spouse.

Remember when there were guys who would buy old motherboards and cards? They were really prospecting for gold; the kind that used to be in your computer. There aren't as many prospectors around any more because the vein has run out!

Back in '82, when an IBM XT sold for about $2,000, the contacts on controller cards, video cards and other such stuff, were gold. There was enough of it that it was profitable to heat the parts to melt the gold and other precious metals for recovery. Those contacts are now made of tin and not worth the trouble.

Transition from gold to tin has been a little slow, so you may have an older motherboard with gold contacts. If you've added RAM you probably got tin contacts. Or, maybe you traded for older SIMMs to boost the RAM on a newer computer. Either way, you may have gold against tin, and they don't like each other.

According to Jerry McCoy, a computer reseller based in Salt Lake City, a degalvanization process may set in that causes the components to decay and crumble. No, you can't brush gold paint on the contacts to solve the problem. But there is supposed to be some sort of stuff that will neutralize the process. No, I don't know what it is called.

It may be small comfort, but before your computer turns up dead from degalvanization of the contacts, it may become obsolete. But dead is still dead, no matter what the cause.

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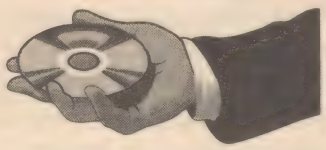

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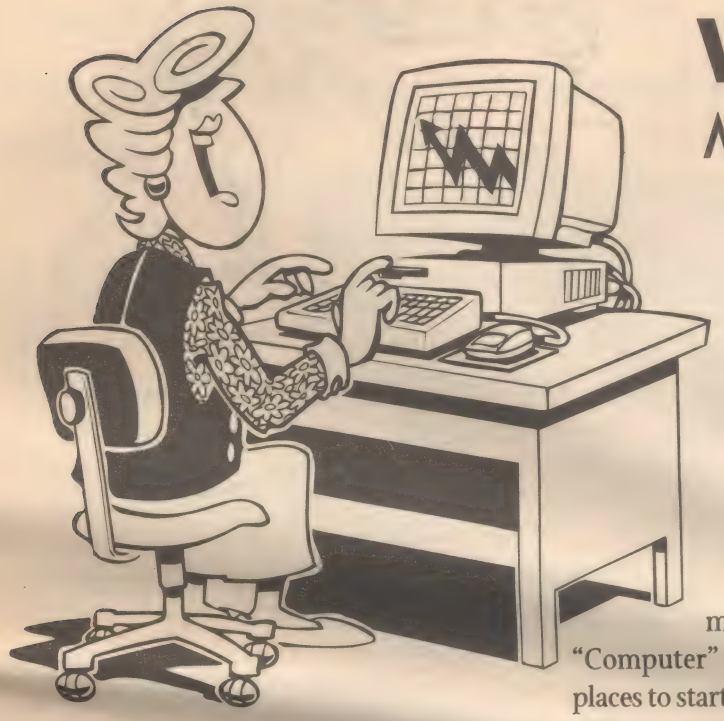
The Small Business Web Site

Marketing your business in cyberspace

By Kristine Bucar



Like a one-year-old child, business on the Internet is still developing. The World Wide Web service of the Internet is the buzz for business. The Web offers interactivity, color, sound, video and information as well as the allure and untapped potential that goes with being a new medium.

With all that at our finger tips, it would seem that advertising and selling on the Web would be easy. But like that child learning to walk, Web businesses have fallen on their faces. Children get up and try again. Businesses lose money.

There's no quick and easy way to learn how to do business on the Internet. We're not born with that information, nor did we learn it growing up. The business owner will have to learn something about the Net, to be able to use it to his advantage. The more you learn about it, the better you'll be able to use it. Get a basic non-commercial Internet account, a book, a mentor or take a class to get started. Be prepared to spend time on this project. It's not as easy as pointing and clicking.

"Find a Web page consultant who knows advertising first and the Internet second," says Pete Martinez, president of Hawaii Internet Emporium, Inc.

The GTE Hawaiian Tel directory didn't have a listing for "Internet" or "Web Page Developers" or "Internet Advertising" this year. Word-of-mouth, online directories or the "Computer" listing in the phone book are places to start to look for technical help.

"Find a Web page consultant who knows advertising first and the Internet second," says Pete Martinez, president of Hawaii Internet Emporium, Inc. Martinez operates a "cybermall" on the Web. Martinez explains that selling on the Web is similar to a mail order business and the Web site is similar to a catalog. Would a small business owner attempt to design, write, print and distribute a catalog in-house? Usually not. There are several steps to the project, do's and don't's and many individuals involved — a copy writer, graphic artist, lay-out designer, printer and a fulfillment company, none of which you want doing the other's job.

Some Web page developers may be very competent HTML technicians, but that doesn't necessarily sell product or effectively promote a brand name. Be wary of a developer that is hard-selling the Internet. When shopping for a Web site developer ask about the production team. Ask about previous clients and ask to see their Web pages. Does the presentation it do a good job advertising? Is it error-free and grammatically correct? Is it aesthetically pleasing, or is there something that just doesn't seem right? Is it interactive, do viewers want stay at the page or bail-out? Do the techie gimmicks enhance the page, or are they just there to show off the latest developments?

A Web site needs to have a specific purpose. Will the pages generate leads, provide customer service, sell product or promote

See WEB SITE; page 28

Pre-Opening Sale
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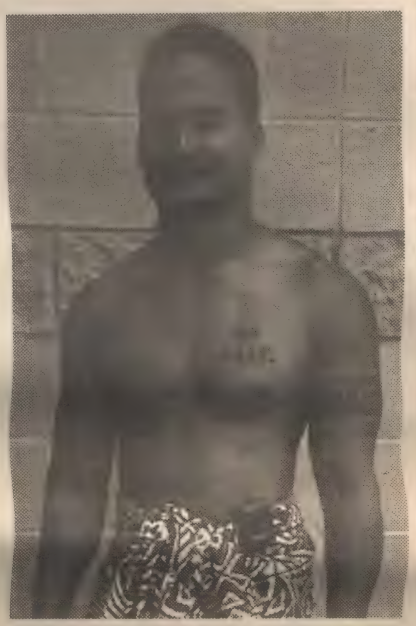

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Quick Tips and Fixes

"VGA graphics, druids and Web sites, oh my!"

By Joe DeRouen

If you're having a problem with your computer, you've turned to the right page. While we can't print every letter, we do read them and will reply personally when the situation warrants it. Keep those cards and letters coming, folks!

Clear game play

Dear Joe,

I recently purchased a used computer that came with a VGA graphics card and Windows 3.1. I'm using a 16-color VGA driver that was on the system when I bought it. Both games and pictures look grainy and hard to see. Is my monitor defective or am I doing something wrong?

Thank you,

Jill Cooper, via Internet

Dear Jill,

Most games are meant to be displayed in 256 colors, so naturally they're going to look a little skewed in anything less than that. To improve the clarity of your video, you'll need to replace the driver or buy a new graphics card and/or monitor. If you don't want to move up to Super VGA monitor and card (a move I strongly suggest) you can probably fix things by finding and using the diskette that came with your monitor.

If you have the diskette, you'll have to check the monitor's manual (or, barring that, call the manufacturer) to determine which driver works best for viewing 256 colors with your system.

If you don't have the diskette or just decide to buy a new card, make sure it'll work with your monitor. A Super VGA card won't work with a VGA monitor, and vice versa.

Windows 95 won't let me play!

I just purchased Druid: Daemons Of The Mind (Sir-Tech) and I can't get it to work. You're supposed to play it in MS-DOS mode, the manual says, but when I run the DOS prompt from Windows 95 and try to run the game, it locks up. I've been waiting for this game for a long time and I really want to play it! Any ideas?

Sincerely,

Arnold Travers, via Internet

Dear Arnold,

You should shut down your Windows 95 system and reboot in DOS mode. Go to the shutdown menu and click on the option to reboot in DOS, and then shut down. When the system starts up again, you should be able to play Druid just fine.

If for some reason you can't, it's quite possible that Windows 95 decided that you didn't need your 16-bit CD-ROM driver and hid it from your system. If that happens, you'll probably need to edit the file in C:\WINDOWS\ called "dosstart.bat" and unremark any files pertaining to the CD-ROM that have been "remmed-out." Once you've done that, you should be able to reboot the system and start playing Druid!

If this doesn't work, then that means that Windows 95 truly erased the files you need to start up your CD-ROM drive in 16-bit mode. Search the hard drive for a file called MSCDEX.COM. It'll probably be in your C:\WINDOWS\ or C:\DOS\ directory (you can check where it's supposed to be by looking at DOSSTART.BAT). If it isn't, you'll need to get it off of the disk that came with your computer or CD-ROM drive. Once you find and copy the file onto your system, everything should work just fine.

People search

Dear Joe,

My ten-year high school reunion is coming up soon, and I'd really love to get in contact with some of my old classmates. The problem is, I grew up in Iowa and have been out of contact with most of these people for a number of years. I've heard that there are sites on the Internet that can help me, but so far I haven't been able to find any. Can you help?

Sincerely,

Michelle Wright, via Internet

Dear Michelle,

It's at once easier and harder than you might think. The easy part is that, yes, there are ways to track down those old classmates. Your first step might be simply to go to a search engine like Web Crawler, Alta Vista or Lycos, and search for their names. In this day and age, it's entirely possible that they have a web page. If they do, and if it's registered with the search engine you're using, then you'll find them.

Search engines

Here's the hard part: It's a good idea to be as specific as possible, so as to avoid coming up with, for example, a thousand hits for the name "Smith." If you remember one of your classmates being named "John Smith," search for the entire name. Most of the good search engines let you enter multiple search terms, so if John Smith is out there and has a web page, you'll probably find him.

If that doesn't work, you can always try Four11. No, don't call your operator; click on over to the Four11 Information Service at **http://www.four11.com/** and find a lost friend or classmate.

Four11 offers several tiers of membership (yes, you have to join in order to use the service) for their site, but the lowest level is completely free. There isn't much you can do at this level of membership, so it's definitely worth the time to fill out the membership form.

Once you've joined, you can search for others who might have registered with Four11 (believe me, a lot of people already have!) via their name, city and state, past organizations, and all sorts of other criteria. While you're searching for long-lost friends, though, don't forget to fill out your own information. They just might be looking for you, too!

I can't recommend this service highly enough. I've personally found several old friends through this site and several have found me. It's free, convenient and on the Internet; what could be any easier than that? Good luck with tracking down those classmates, Michelle! Be sure to let me know how it turns out.

©1996 Joe DeRouen. All rights reserved. *Are you having a problem with your computer? Write to Joe at* **Hawaii's Web & Internet News** *via Sunlight Through The Shadows BBS at (214) 620-8793, on the Internet at* **jderouen@crl.com**, *on AOL via* **jderouen**, *or through CompuServe at* **73654,1732**.

Check out these sites:

WebCrawler — *http://webcrawler.com/*
Alta Vista — *http://www.altavista.digital.com/*
Four 11 — *http://www.four11.com*
Joe's World Wide Web Home Page — **http://www.crl.com/~jderouen/**
Lycos — *http://www.lycosl.com/*

OFFRAMP

Continued from page 12

by the icons in the shortcut toolbar), and you can first read the instructions for using a document in the Help system, then launch directly to that document. In fact, the list of documents is so comprehensive, you can pretty much install Office and the Small Business pack, spend some time customizing the forms (adding your company information) and start running your business. If you don't need to make heavy customizations to the forms, very little knowledge of how to use the Office applications is even needed — you can pretty much just follow the on-screen instructions. As a result, the Microsoft Small Business Pack is an ideal package for small business owners who don't have a well-developed suite of tools — and who have no wish to spend the time to build those tools from scratch using the Office suite of applications. In fact, the availability of the Small Business Pack is a compelling reason to purchase Microsoft Office over other office suites. Something to think about for Lotus/IBM and Corel/Novell.

The forms are generally limited to a single Office application (e.g., a spreadsheet or a word processing document), but good use is also made of the OLE capabilities of the Office suite. For example, the "Planning" section offers a "Business Plan." This is actually two documents — a spreadsheet that includes the common business plan charts and graphs (five-year forecast, assumptions, break-even analysis, startup costs, sales forecasts and income forecasts) and a Word template that embeds the various worksheets within it. This Word template also provides a sample outline and text for completing a business plan. It's not BusinessPlan Pro or PlanMaker, but it's a lot less expensive!

The forms are also easy to use, but don't explain a lot of the data you are expected to fill in. For example, although the spreadsheet forms feature custom toolbars to guide you through the various pages of the sheet, they don't tell what information you are supposed to supply in many of the cells. Fortunately, you can find many of these items discussed in the Help, but you have to search for it. Word forms feature areas where you are prompted to click and type the necessary information (e.g., the fax number on a fax template). Oddly, the Small Business Pack enables you to customize an Excel spreadsheet template and save the result as a document — but it doesn't enable you to do the same to a Word template — these can only be saved as templates. This is puzzling, since, of course, you can directly launch to the form and save it as an document from the Explorer (or within the application itself).

Business Database is cool

Probably the most useful section of this package is the Business Database. While many people are proficient with word processors and spreadsheets (and are thus at least capable of building many of the documents themselves), most people don't know how to design and build a relational database application. The Business Database enables you to track almost every part of your business and is functional right out of the box. And, as good database applications should, all the data is linked together. Thus, the "salesman" that you assign to a client account must first be set up in the Employee section of the database.

The Business Transactions section of the database includes Invoices, Accounts, Payments, Purchase Orders, Receiving, Request for Quotations, Shipping Orders and Vendors. You can create multiple "request for quotations" and summarize them on a special form, turn one of them into a purchase order, record the items received and process a payment for those items. In the Sales section, you can set up customer profiles and products, process sales orders (and generate charts and reports in support of the orders) and use Shipping Orders mentioned above to record items as they are sent out. The Time Billing section is used for services, and you can record clients, projects (and generate project status reports), employees assigned to those projects, billing rates, time entry, expense statements, and time billing invoices. Finally, the Human Resources section enables you to record not only basic employee information, but also create employee reviews. You can even create job listings and track the applicants.

There is quite a bit of automation in the Business Database. For example, with a single click of the mouse button, you can turn an applicant into an employee. If you open a form that requires information you haven't yet entered in the database (e.g., an employee review form when you haven't entered any employees), Access presents a friendly dialog that tells you which forms you must use to enter the necessary information. There are a few places where the forms are a little confusing, but the field descriptions that Access presents on the status line really help.

A glitch in time

There are a few usability glitches in the Small Business Pack. For one thing, there is no manual to speak of — just a pamphlet that

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HVCB CALENDAR

Continued from page 9

folk arts workshop, video festival, Hawaiian Language Night, a Ukulele Jam, hula competition, arts, crafts and food. Call: 822-2166.

EARTH MAUI August 23–25. A Rainbow Music Festival, 5K Run, snorkeling adventure, eco-seminars, nature exhibits and tours of conservation facilities and the field al focus on the natural environment of Maui. Kapalua Resort. Call: 669-6200.

BORN YESTERDAY, ON MAUI August 23–Sept. 8. Historic Iao Theatre in Wailuku hosts this comedy produced by Maui Community Theatre. Call: 242-6969.

KAILUA BAY IRON CHALLENGE CANOE RACE August 24, sponsored by Kailua Canoe Club. Kailua Beach Park. Long distance races. 8:00 a.m.

KA HOOLAANA August 24. A ritual investiture of the Big Island Aloha Festivals Royal Court takes place at high noon on the rim of Halemaumau Crater in Volcanoes National Park on the Big Island. Call: 885-8086.

HULA PA HAWAIIAN DANCE August 24. Hula Kahiko on the hula mound next to Volcano Art Center within Volcanoes National Park on the Big Island. It takes place from 2 p.m. to 3:30 p.m. Free admission. Call: 885-8086.

INTERCULTURAL DANCE CONCERT August 24. Dance concert of African, Jazz, Hula, Butoh, Hawaiian and modern at University of Hawaii in Hilo at 7:30 p.m. Call: 965-7828.

DEAD CENTER CANOE RACE FOR WOMEN. August 25, sponsored by Outrigger Canoe Club. Ladies race from Kailua Beach to Outrigger Canoe Club. 8:00 a.m.

NATIONAL PARK DAY AT PUUHONUA O HONAUNAU August 25. Cultural displays at this City of Refuge at Honounau on the Kona Coast of the Big Island. Call 328-2288.

ALOHA FESTIVAL MOIKEA CUP August 25. Hawaiian Sailing canoes race on the Kohala Coast of the Big Island, with good viewing at Hapuna Beach Park. Call: 326-7820.

THE MAUI WRITERS CONFERENCE & MANUSCRIPT MARKETPLACE August 30 through Sept. 2, 1996, Labor Day Weekend at The Grand Wailea Resort, Hotel & Spa. Jackie Collins, Ron Howard (Apollo 13), Sue Grafton, Ann Rule, Dan Millman,John Saul and Terry Brooks are just a few of the best-selling authors confirmed to present at this annual event. Over 30 literary agents and editors will be available to help undiscovered authors get their books published. For more information email **mauicon@aol.com** or call (808)879-0061.

25TH ANNUAL QUEEN LILIUOKALANI CANOE RACES August 31. This is the largest Big Island canoe race event with paddlers from all over the state descending on the village of Kailua-Kona, with races entertainment, crafts and foods. Call: 326-7820.

LANAI TO MAUI CHANNEL RELAY SWIM August 31. Lanai to Kaanapali on Maui with an international field of competitors in 9- mile, 6-person relay race. Call: 335-5709.

TWENTY-SECOND PARKER RANCH LABOR DAY RODEO AND HORSE RACES August 31–September 1. Annual rodeo event at Paniolo Park in Waimea on the Big Island. Call: 885-7311.

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BIOTECHNOLOGY

Continued from page 18

(Although there are lots of great companies in the field, anyone contemplating investing should understand that it's hard to pick the winners from the losers, so it's very risky.)

One reason I'm attracted to the biotechnology industry is that it takes such good advantage of information technology. Computers are a fundamental tool for searching the genome to find patterns that match, modeling complex systems and communicating with other researchers.

Researchers mapping the genome, in countries around the world, use electronic mail to share ideas. They put their results up on the Internet and search for detailed information on the work of others. Darwin, for instance, has built a state-of-the-art intranet to assist its researchers in navigating the phenomenal network of gene data that's available, both inside and outside the company.

With the aid of the Internet and other modern information tools, it took only eight months for a team that included Darwin scientists to discover a gene defect that can lead to premature aging. Researchers plowed through 650,000 nucleotides until they found a mutant gene to blame for Werner's Syndrome, which causes 40-year-olds to look like — and have the infirmities of — 80-year-olds.

If it weren't for the Internet, this discovery might still be years away. Not only did the Internet allow for messages to be sent between the researchers at several sites, but it also allowed international databases of genetic information to be searched in a matter of minutes, instead of in days at a physical library.

It's exciting to see computer and communication technologies used so effectively and to such good purpose. Even if PCs and the Internet did nothing but advance medical research, all of the investment that we have made in these information tools would be well worthwhile.

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OFFRAMP

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summarizes the forms. Also, there is no button on the toolbar that opens the Business Database application. This seems like a strange omission for such an important part of the application. Instead, you must open the Business Database main menu from the Help — an unnecessary extra step.

The audience

So who should buy the Microsoft Small Business Pack? If you have sophisticated requirements, you will need to look at more advanced packages. The Small Business Pack does not try to do a complete job of accounting, nor does it offer the industry-specific tools that have developed over the years (such as construction estimating packages or medical office applications). But for a small business owner with moderate needs and a copy of Microsoft Office, this package is a remarkable value. Even if you know quite a bit about the Office applications and have the time to build your own forms, these forms are a great place to start — and the collection is very complete. Heck, I've started using them myself, and I've been running my own business for 12 years now.

The Small Business Pack is available for $99 from Microsoft Corporation

©1996 David Plotkin. All rights reserved. David Plotkin is a data administrator at Long's Drug in Walnut Creek, California, and the author of **Using Lotus Approach for Windows.**

WINDOWS

Continued from page 11

a new 2.1 gigabyte hard drive and added more memory for a total of 40 megabytes, and then installed Windows 95. I am getting "Program has performed an illegal function and will be shut down" errors. How do I isolate the cause of the problem and fix it?

A: This scenario presents several opportunities to review the anxiety some of us encounter when upgrading to Windows 95. Let's look at some of the practical, logical steps to take.

My first step would be to investigate the possibility of a known bug with using Windows 3.x applications under Windows 95. There are numerous bugs reported with dozens of otherwise well-behaving Windows/WfWg and Win32 applications used under Windows 95. Check **www.bugnet.com** for a few pointers or get Bruce Brown's "Windows 95 Bug List" book.

If your application is on the bug list, take the recommended steps in the bug report — which usually means obtaining a specific patch to the application from the publisher, upgrading a driver or making an adjustment to Windows 95's configuration.

If no known bugs are published, it's time to look at the system configuration:

Are any old eight or 16-bit device drivers or real-mode DOS programs loaded in config.sys or autoexec.bat before Windows 95 loads?

Can we simplify the configuration by not using emm386.exe, by not loading one or more device drivers into upper memory or eliminating one or more device drivers that Windows 95 should provide internally?

Booting up with only himem.sys and not loading any other device drivers in the config.sys file, and loading no other programs in autoexec.bat will provide a cleaner environment for Windows 95 to run in.

Next I would start with removing the new RAM added to the system, to get back to using only the original amount of RAM before this upgrade step. It's possible that your system was never tested with this much RAM and Windows 95, and you've uncovered a system board, BIOS or chipset defect. Getting a BIOS update may be as simple as downloading and applying a couple of files from the Award Software Web site at **www.award.com.**

It's unlikely that the hard drive upgrade has presented any cause for crashes, but going back to the original hard drive is a final option in isolating potential problem sources.

©1996 Jim Aspinwall. All rights reserved. Jim Aspinwall is the author of the best-selling book, **IRQ, DMA, & I/O** *covering PC configuration guidelines; and a co-author of two PC how-to books,* **The PC User's Survival Guide** *and* **Troubleshooting Your PC** *(with Rory Burke and Mike Todd.)*

Hawaii's Web & Internet News *readers are encouraged to submit PC, DOS, Windows 3.x or Windows 95 questions via the Internet to:* **wb9gvf@netcom.com**, *or the Web:* **http://www.raisin.com.**

Futurekids

Hawaii's children prepare for the future while having fun

By Ann Inoshita

Six-year-old Liko Cadiente is creating a story using Storybook Weaver Deluxe. Betina LeVeau, his teacher, asks him to put his name on the story. Liko enthusiastically points to the correct icon, which pulls up his name and identifies Liko as the author of the story he is writing.

"Do you want to be an astronaut or alien?" his teacher asks. Liko maneuvers the mouse as if he has used it for years and drags an astronaut onto the screen.

"Good job!" praises his teacher.

Liko is a one of many "Futurekids" who is enrolled in computer classes conducted at the recently opened Pearlridge Computer Center, located in Pearlridge Center, Downtown (formerly known as Phase II). The Center's owners are Bonnie and Bryan Osaki, who hold one of the local franchises to Futurekids, an international chain of stores located in 49 countries around the world.

Futurekids provides a way for children to start gaining the computer skills they will need in the future.

The shop opened its doors in January of this year and immediately began offering computer classes geared to children. The first sessions signed up 51 kids. The current enrollment includes 150 children in a variety of classes.

Bo Cadiente, Liko's father, is pleased with the program. "What I like about Futurekids is that they (the children) learn computers and the learning process is fun," Cadiente said. "It helps a child's self-esteem and mental development."

At The Pearlridge Computer Center, children can enroll in a year long program, which is divided into six-week curriculums. Each curriculum has a theme. For example, children learn about space in "Futurekids City: Orbit It!." In the "Futurekids City: Built It!," kids learn about architecture.

The teaching philosophy behind the Futurekids programs is to structure the classes according to the ages of the children and to keep objectives age appropriate.

Weekly classes are 50-minutes long and tuition is $95 a month. Thirty-minute classes are available for younger children and cost $60 a month. There is a sibling discount when more than one child from a family enrolls in the classes.

During the summer, the Pearlridge Computer Center offers five-day camps for children at the center, which run from 9 a.m. to noon. They include a Cartoon Camp (ages 4-5), Sim Ulation (ages 8-11), Computer Craft (ages 6-7), Junior Entrepreneur (ages 6-7) and Robotics (ages 8-11). Camp prices range from $150 to $350.

While children are its main focus, the Center provides services and classes for teenagers and adults too. Most classes are either free or $45. Seniors receive a 10 percent discount. The free classes (funded by Pearlridge) typically run 45 minutes, while the fee classes run about two-and-a-half hours.

A free Pearlridge Orientation course is a prerequisite to taking any class. Its main objective is to get everyone familiar with the computers at the Center. Other free classes include: Money Management, PC Preventive Maintenance, Win 95 Overview, Spreadsheet Overview and Word Processing Overview.

Fee classes include: In Depth Basics, Introduction to Spreadsheets, Creating in MS Publisher, Introductions to Quicken, Introduction to Word Processing, and Introduction to Database.

Free computer time is offered from 10 to 11 a.m. and from 8 to 9 p.m. Monday through Saturday, and from 4:00 to 4:45 p.m. on Sunday. At other times, there is a $12 per hour charge to use a computer. There's also a charge for online connections at any time ($10 per hour) and printing ($.75 per page for black and white, $2.25 per page for color and $3 per page for transparencies).

All computers are Compaqs with a 133 MHz Pentium processor, 16 MB RAM, quad speed CD-ROM drive and a 28.8 kbps modem. The operating system used is Windows 95 and all software is IBM compatible.

The Pearlridge Computer Center is located near the Pearlridge 12-plex theaters at 98-1005 Moanalua Road, Pearlridge Center Downtown. The store is open during retail hours from 10 a.m. to 9 p.m., Monday through Saturday, and from 10 a.m. to 5 p.m. on Sunday.

Since all classes and computer usage times are scheduled, customers should call the Center at (808) 488-4484 to sign up for a class or enroll in a Futurekids program. The Pearlridge Computer Center fax number is (808) 487-0970. Email to **72742.130@compuserve.com.**

Other Futurekids franchises on Oahu are located in **Manoa (988-9560), Kahala (737-4503)** and **Waipio Gentry (677-0868).**

Check out this site:

Futurekids — *http://www.futurekids.com/homepage.html*

WaterWatch

Educational TV program goes interactive on the Net

By Ken Ray

WaterWatch is an educational television program for kids with a high-tech twist. Originating from KHET, the public television affiliate in Honolulu, the program is televised to children in classrooms from California to New York. The classrooms are linked via the Internet. When Patty Miller, the on-screen teacher, asks a question, students in classrooms from across the country can share responses with each other.

The purpose of the show is to raise the consciousness of children about the need to protect and understand the fragility of the earth's water supply and relating that to water issues within their own communities.

There is surprising agreement in the answers to universal questions asked by WaterWatch of students from across the country: We all need clean water. Our water supply must be protected from pollution.

WaterWatch comes with a classroom guidebook to enable teachers to coordinate individual lesson plans with the show. A national television network brings the program to young viewers in their classrooms. Steven Gima and Kenneth Yoshimoto of the Maui High Performance Computer Center designed the home page and programmed the link to the Internet.

Using a high-speed ISDN line (which was donated by GTE), the Internet is able to handle the flood of responses from eager students. There is also an 800 number for participants without Internet capability.

Patty Miller's KidScience television programs have been televised statewide for five years. Last year, she hosted "Wayfinders: Exploring the Pacific," a joint venture with the Bishop Museum and other sponsors. Wayfinders was an ambitious project involving transpacific voyages by canoes from all over Polynesia.

The Hawaiian canoes *Hokulea* and *Hawaiiloa* sailed over 2,000 miles from Hawaii to the island of Raiatea (about 150 miles from Tahiti) to rendezvous with other voyaging canoes from the Cook Islands, New Zealand and Tahiti.

In March 1995, these representatives of Pacific island nations came together for the first time in over 600 years at the temple of Taputapuatea. Two days of prayers, offerings, rituals and ceremonies celebrated the rededication of the great marae (temple) of Taputapuatea, the ancient center of Polynesian sea voyaging.

The *Hokulea* and the *Hawaiiloa* then sailed back to Hawaii by way of Tahiti and the Marquesas Islands. Their voyage was closely followed by Hawaii television stations and the media and also monitored on the KidSail home page.

Patty Miller hosted seven KidScience broadcasts in sharing the experience of these modern day sailors. As the voyagers were returning to Hawaii, 110 KidSail Web site "crew members" from Hawaii schools experienced the historic event via the Internet.

See WATERWATCH; page 28

Preparing for the future:
Students sharpen their computer skills while performing in-depth research.

Waipahu High School's Telecommunications Class

By Ann Inoshita

Telecommunication classes play a major role at Waipahu High School's Business and Computer Technology Learning Center. The instructor and coordinator of the learning center is Jean Miyahira. She says that the major goal of the class is "to provide our students with a learning experience that will make them whole, well-rounded students who will be able to utilize technology as part of their learning process."

The classes require students to perform in-depth research in completing their projects. Research requirements range from searching through a vast array of multimedia sources to actual interviews in the field.

This year, two telecommunications classes were offered to juniors and seniors resulting in a total enrollment of forty-eight students.

Judith Galario, a recent graduate who completed the telecommunications course enjoyed the class and believes other students should sign up. She will attend Creighton University and plans to use skills obtained from her class for her studies.

Miyahira states that with the continued support from businesses and members of the community, Waipahu High School will continue to provide students with unique learning experiences not found in other schools.

WEB SITE

Continued from page 22

brand-name recognition? It's generally agreed that to keep fast-clicking Web surfers coming back to the site, it needs to provide real information and fresh content. If the main purpose of the production is to maintain or establish customer dialogue, then having an easy way for the visitor to send email at any time will be important. Even more critical, will be answering that email in a timely and professional manner.

A Web site designed to sell should offer the customer several ways to order. The customer should be able to call a toll-free phone number, fax, email, or print and mail an order form. Price, quantity, tax, shipping and product description should all be clearly stated.

Other options are whether your Web page will be part of a cybermall or a stand-alone site. A cybermall can offer better "foot traffic" and may be simpler to maintain. A business planning to utilize the Internet extensively might need a more complicated Internet solution than what can be covered in this one article. Find out what is included in Web page production. Will the developer list the new Web site with online directories? Will the developer maintain the page? Will the developer register a domain name for your business? Will that cost extra? What kind of tracking reports are provided and how often?

The Hawaii Food Manufacturers Association (HFMA), a local organization, developed a Web site that lists information about all its members. Members of HFMA get a listing on the Web page for free. Association vice president Cindy Adair says, "It was a long, involved process of getting it done. Trying to get 100-150 people organized is a chore." It was an investment that was partially funded by the Department of Agriculture. Adair says, "It's another way to be able to get the information out there." She points out that the Hawaii market is somewhat limited and the Internet reaches global markets. Adair maintains a separate page for her Jungle Jerky product which has received Internet orders from as far away Germany and Saudi Arabia.

"I was kind of surprised we got as many orders as we did," says Adair about her Jungle Jerky page. She says beef jerky is well-suited to the mail order business. It's a consumable, a good gift, a low-ticket item and inexpensive to ship. Adair says that she is close to recouping her initial investment.

Hawaiian Resources publishes calendars, postcards and books, and maintains a Web page at Hawaii Internet Emporium. "During the prime calendar season we had four or five sales a day," says General Manager Lisa Okino. Okino says they get enough sales to justify an online presence, but Hawaiian Resources views it "as an advertising tool rather than revenue-generating." The Web page brings in inquires from around the world and has led to sales of bigger ticket items. Okino "doesn't have the time or desire" to maintain the page; being part of a cybermall requires less time investment than an in-house production.

Whether a stand-alone page or a cybermall; whether for mail order or company name recognition, the Web site itself needs to have a marketing plan. Businesses can promote their Web presence online and in traditional media. The first step is getting listed with directories and search engines. The popular sites also sell banner ads which cost about $20,000 per 1 million page views. Some sites sell ads based on "click-throughs" — the number of visitors that click on the ad.

A company can plaster its email address and Web page address — in cyberspeak, a URL (Uniform Resource Locator) — in all its other advertising, on business cards, letterhead, brochures and promotional material.

Webvertising and webselling are still in their infant stages. Some predict that business on the Web will never amount to anything. A cautious business person can start with a modest venture. Web surfing will help the uninitiated avoid flushing away precious resources on an unsuccessful Internet campaign, and help decide what type of Web presence is best.

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WATERWATCH

Continued from page 27

The students researched canoe construction, navigational concepts and life aboard an ancient Polynesian voyaging canoe. Then they composed reports and inputted them on the Net.

KidScience is currently broadcast for two hours weekly to 600 classrooms throughout the state. Once a month, a KidScience Special features a guest expert. For example, a Sea Life Park scientist may talk about sea turtles. Several times a year, KidScience will produce an Internet special like WaterWatch.

Presently, Patty Miller has three such projects in the planning stage: Living on the Side of a Volcano, The Life and Times of a Humpback Whale and Technology in the Environment. All of the programs will feature the "live and interactive" format used in WaterWatch.

WaterWatch producer Ed McNulty says the main goal is getting the kids to access the information that's available. Using technology to make learning fun is the challenge, he says. Patty Miller and KidScience appear to be up to the task.

Check out these sites:

KidScience — *http://kapalua.mhpcc.edu/kids/*
WaterWatch — *http://kapalua.mhpcc.edu/waterWatch/general/html/waterWatch.shtml*
Bishop Museum — *http://www.bishop.hawaii.org/*
1995 Voyage of the Hokulea and Hawaiiloa — *http://leahi.kcc.hawaii.edu/org/pvs/navigate/voyage.html*

HOME

Continued from page 10

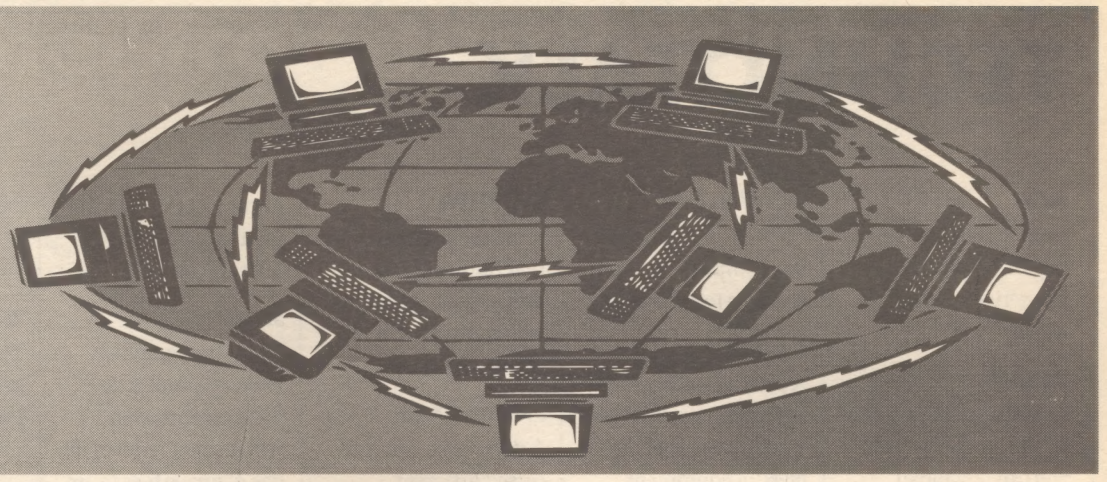
— which are eight-sided dwellings traditionally made of logs and mud with no windows and with the door always facing east. They live without running water, electricity or phone. There was only one place in the area for miles around with a phone — the small office of the Dineh Alliance. The Alliance is fighting to repeal Public Law 93-531— The Relocation Act which has forcibly removed 10,000 traditional Dineh people from their homes and threatens to remove the 2,000 who still remain on lands their families have lived on for thousands of years, dry-crop farming and sheep-herding. The "New Lands" where many people were relocated was part of a land fraud significant enough to prompt a congressional investigation because this land is contaminated by 1.5 million tons of uranium ore which was processed and left in contaminated waste piles covering 72 acres next to the San Juan River near Shiprock, New Mexico.

Their office just happened to have one little computer. Therefore, my son and I were able to keep in touch via email. He was able to keep me up on the goings-on, as well as the health of his uncle, all through the Internet. Our contacts weren't often, but when I did hear something, it was up-to-date.

As a Native American (Tsalagi or "Cherokee") in paradise, I am also interested in what goes on with other indigenous peoples throughout the world. I subscribe to the NativeNet (which is an information source where things from all over the world are posted every day) and receive messages of interest every day which I read and forward to others who are interested or need to know, including friends on and off-island, as well as to schools. True networking! There are several schools here now online. A few home pages have been created. The limitless potential of the Internet is just beginning to be realized here on Molokai. We may not have movie theaters, major fast-food outlets or shopping malls, but we now have the world. A hui hou until next time.

Convergence

By William Reuben Barker



In August 1995, Microsoft Corporation released their long-awaited graphical operating system Windows 95. The important part to understand about Win 95 is not how successful it is compared to its predecessors, but that as far as the IBM clone and compatible market is concerned, Win 95 is the only operating system available. If you can't believe this fact, next time you are in an IBM or clone computer store, ask the salesperson what other operating systems are available. IBMs OS/2 (Operating System Two) now referred to as Warp is a great piece of work, but the lack of developed software that runs on Warp has seriously affected the product's acceptance by Intel-based PC users.

Microsoft also tipped their hand on future development of products for the Internet by launching their own Internet access provider service dubbed *The Microsoft Network*. The introduction of the MSN spurred yet another round of antitrust suits against Microsoft.

I will predict that the government won't prosecute Microsoft for anti-trust violations as long as the government is one of Microsoft's biggest customers. It also looks bad for the government to harass one of the few international American companies actually making a profit.

1995 was also the year when the First Amendment, sex, religion, politics and government censorship all came together, or should I say, collided on the Internet. CompuServe was dragged through the censorship coals by the new German government concerning certain newsgroups and information considered not "appropriate."

Personally, I felt that most of the First Amendment folks shot themselves in the foot over this one, but I also want to say that going overboard (concerning censorship) is not a bad thing.

It's absolutely crucial that citizens get involved with Internet censorship issues and their effects on a free society rather than the unthinkable alternative of censorship apathy. So, please First Amendment people, keep up the vigilance concerning censorship on the Internet, and let us humble journalists know what we can do to help.

The past year also saw the emergence of a tiny but determined commercial Internet. Most of this new business has taken shape in the form of Web sites and storefronts. The response from users has been muddied and slow. For some of the investors, this initial foray into the cybermalls has been spelled e-x-p-e-n-s-i-v-e.

Recently, some close associates of mine were bewildered when they spent a bunch of money on a Web storefront and had a perfect product that sold extremely well in the classic markets, but bombed out on the Net. Their hit register which monitors visits to the site averaged over 400 visits every eight hours, but registered nary a sale. Not even one!

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I think this paradox is traceable to most of the Internet users themselves. Demographic data taken from the Internet is difficult to analyze and stifles most traditional advertising efforts. Hardly any of the hooks work like they should and investing extra capital to find out who the buyers are has not paid off.

Another big factor affecting sales on the Internet is the average consumers distrust of an electronic system that takes your money without ever showing you its face. The technology has been around for a long time that would allow banks to offer computer banking to their depositors, but the general public has been keenly suspicious of the process and for the most part have not warmed up to the idea.

The final bit of negative growth demographics is the fact that only roughly six percent of the U.S. population are anywhere close to being tagged as computer users. More people will have to be familiar with the Internet before a viable business presence can be established.

The rest of the users on the Internet are comprised of hackers, techies and academics who are all by definition non-buyers. This doesn't mean that these folks are not consumers. I merely state that most of these individuals wouldn't be caught dead buying a bouquet of flowers over the Internet.

My opinion is that Internet business growth will remain slow but will maintain steady growth. Now, if someone with an established credit system already in place, like Sears or J.C. Penney's, were to make their products and services available on the Internet, this situation might change drastically. But, these big players are notoriously conservative, (and rightly so) which might block their entry in the near future.

We certainly haven't seen the last of the Internet. Refinements in telecommunications technology are allowing more and more users access and at lower costs. Several computer makers are talking about introducing one of the first Internet inspired products. A scaled down computer, sans the hard drive, diskette drives and/or other expensive components. This idea is driven by the notion of sole access of the Internet alone.

The users of this enhanced "dumb terminal" would be able to cruise the Web; print images from their screen; send and receive email (via their service provider host machine). If it becomes absolutely necessary to download data files, the downloaded files could be saved on the service providers host computer or transferred to an alternate site.

Although the 1996 Telecommunications Act was not passed in 1995, the roots of the act went all the way back to 1993 and the notorious clipper chip. A watered down version of the clipper chip was inserted into the legislation language, but it is now carefully referred to as the "V" (Vee, for violence) chip. This little electronic wonder will allow you to filter out somebody else's version of violence on your television.

The next Convergence column will be entirely devoted to this legislation and its influence on Hawaii's unique telecommunications industry.

See you then.

TECHNOTALK

AOL
America Online. The largest proprietary online service in the world.

ARCHIE
A utility for finding files stored on the Net that you can download using FTP.

ARTICLE
Net lingo for a message posted to a newsgroup.

ASCII
American Standard Code for Information Exchange.

BACKBONE
A high-speed set of network connections.

BANDWIDTH
The amount of information that can flow through a given point at any given time.

BAUD
Modem speed equal to one signal per second.

BBS
Bulletin Board System.

BINARY FILE
A file that contains non-textual information.

BOOT
To load and initialize the operating system of a computer.

BPS
Bits per second. A measurement of modem transmission speed.

BROWSER
A client program that enables a search capability by a specific server used generally in relation to the World Wide Web.

CD-ROM
Compact Disk - Read-Only Memory. A data storage medium.

DOS
Disk Operating System. An operating system for IBM-compatible computers.

DOWNLOAD
To transfer a file from one computer to another over a telephone line.

DRIVER
A piece of software that tells the computer how it relates to a specific piece of equipment such as a printer or scanner.

EMAIL
Electronic mail. A message you compose on your computer to be received by someone else's computer.

FAQ
Frequently Asked Questions. A file containing responses to common questions.

FINGER
A utility that lets you reach out and touch information about other users on the Net.

FLAME
To hurl insults and abuse at another user electronically.

FTP
File Transfer Protocol. A method for moving files across the Net.

GATEWAY
A computer that connects an office LAN or commercial online service to the Net.

GIF
A platform-independent file format used to distribute graphics on the Internet.

GIGABYTE
1024 megabytes.

GIGAFLOPS
One thousand million floating-point operations per second.

GNN
Global Network Navigator; a cross between the Farmer's Almanac and TV guide for the Internet.

GOPHER
A menu-based program that tunnels between different computer networks in search of information.

HOME PAGE
A document that is accessed first after launching a Web browser on the World Wide Web.

HTML
HyperText Markup Language. Used to mark text files with styles and links for use on the World Wide Web.

HTTP
HyperText Transport Protocol. Protocol used on the World Wide Web.

INTERNET SERVICE PROVIDER (ISP)
An organization which provides Internet access for individuals or other organizations.

IRC
Internet Relay Chat. Featuring real-time "conversation" with people all over the world.

ISDN
Integrated Services Digital Network - a high-speed connection to the Internet using a digital phone line.

JAVA
A simple object-oriented, architecture-neutral, high-performance, dynamic, general-purpose programming language. Java supports programming in the form of platform-independent Java applets.

JAVA APPLETS
Small, specialized applications that allow developers to add interactive content to Web documents such as simple animation, page adornments, etc.

JPEG
Joint Photographic Expert Group. A defined compression scheme that reduces the size of image files by up to 20 times.

JUGHEAD
A utility used for doing indexed searches on Gopher servers.

KILOBYTE
1024 bytes.

LAN
Abbreviation for Local Area Network. Two or more computers connected together via network cables.

LCD
Liquid Crystal Display. An electro-optical device used for display purposes.

LURKER
Someone who reads articles in Usenet groups without posting any.

LYNX
A text interface used to view documents on the WWW.

MAIL BOMBING
The act of sending hundreds or thousands of email messages to someone who deserves punishment for wrongdoing on the Internet.

MEGABYTE
MB or meg for short. 1,000 kilobytes in a megabyte. A unit of memory measurement.

MODEM
Stands for Modulator-Demodulator. Allows your computer to communicate with another computer.

MOSAIC
A graphical interface for viewing WWW documents.

NETIQUETTE
Your etiquette while you're Net surfing.

NETSCAPE
The most popular Web browser. Recently released its newest version, Netscape 3.0.

NEWBIE
A new Internet user; often considered flame-bait by unsympathetic Net vets.

NEWSGROUPS
Any one of the Usenet's 15,000-plus electronic discussion groups. Each group devoted to a specific topic.

PARALLEL COMPUTING
The simultaneous use of more than one computer to solve a problem.

PC
Personal Computer.

PING
A diagnostic utility that lets you kick a remote computer in the side to see if it's awake.

PIXEL
One single dot out of thousands that make up a screen image.

POP
Point of presence. Refers to local phone numbers maintained by national or regional Internet access providers.

PPP
Point-to-point protocol; a type of access account that gives you virtually direct access to the Net.

SELF-EXTRACTING ARCHIVE (.sea)
A compressed file(s) contained in a decompression program so other programs are not needed to expand the archive.

SLIP
Serial Line Internet Protocol; a direct type of Internet access account requiring TCP/IP software.

SMILEY
A symbol made from ASCII characters :)

SNAIL-MAIL
As opposed to email, aka the U.S. Postal Service.

SPAMMING
Broadcasting a single message to multiple newsgroups or email addresses.

SUPERCOMPUTER
A broad term for the fastest computers currently available.

SURFER
A Net guide or dudette.

SVGA
Super Video Graphics *Display. A higher resolution.*

T1, T3
High-bandwidth leased telephone lines, used to connect LAN's to the Internet.

TCP/IP
Transmission Control Protocol/Internet Protocol; a series of rules computers must obey in order to communicate across the Net.

TELNET
A communications protocol that lets you log onto another computer from a distance.

TERABYTE
1024 gigabytes.

UNIX
A complex, powerful and extremely scary operating system used extensively on networked machines, beloved by engineers but best avoided by everyone else.

URL
Uniform Resource Locator; the address of a page on the WWW.

USENET
A network featuring thousands of discussion groups.

UUCODE
A file format used to transfer binary files in email.

VERONICA
A program that tracks down information stored on the Net; searches gopher services by keywords.

WAIS
Wide Area Information Server; the electronic equivalent of a librarian.

WHOIS
One of several Internet directories, listing names, and email addresses for Net VIP's.

WINDOWS
A graphical user interface software released by Microsoft in November 1985 to run on top of MS-DOS.

WWW
World Wide Web; a hypermedia network for Net-heads who cannot live by plain text alone. Documents on the Web may contain images, sound and video as well as text.

HAWAII'S Web & Internet NEWS

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